



THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica St. Louis

13715 Rider Trail North

Earth City, MO 63045

Tel: (314)298-8566

TestAmerica Job ID: 160-27368-1

TestAmerica Sample Delivery Group: SL2827

Client Project/Site: A18-003 / S18-003 / W18-003

For:

CH2M Hill Plateau Remediation Company
PO BOX 1600, MS H8-41
Richland, Washington 99352

Attn: Mr. Scot Fitzgerald

A handwritten signature in black ink, appearing to read "Jayna Awalt".

Authorized for release by:

4/16/2018 2:22:08 PM

Jayna Awalt, Project Manager II

(314)298-8566

jayna.awalt@testamericainc.com

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www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 160-27368-1**Laboratory: TestAmerica St. Louis****Narrative****CASE NARRATIVE**

CH2MHill Plateau Remediation Company
P.O. Box 1600
Richland, Washington 99352
April 16, 2018
Attention: Scot Fitzgerald

SDG : SL2827
Number of Samples : 15 samples
Sample Matrix : Water
Data Deliverable : Summary
Date SDG Closed : March 16, 2018

II. Introduction

On March 16, 15 samples were received by TestAmerica - St. Louis for analysis. The samples were received within temperature criteria. See the COC and receipt checklists for documentation of any variations on receipt conditions and temperature. Upon receipt, samples were given laboratory IDs to correspond with specific client IDs. Please refer to the Sample Summary sheets attached to this case narrative. This report is incomplete without the narrative.

The following SAFs are associated with this SDG: A18-003, S18-003 and W18-003

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits. All results are based upon samples as they were received, i.e. wet weight, unless otherwise noted on the data sheets. See the attached Methods Summary Form for the methods used in this SDG.

MS/MSD/Dup analysis was done per the client requirements. Analytical batches that did not contain matrix QC were analyzed with an LCS/LCS duplicate.

Note: For Metals analyses, per standard practice, all 6020 water and soil samples are initially prepared at 2x dilution. This standard dilution does not affect reporting limits as MDL studies are also prepared in the same manner. These dilutions do not necessitate a narrative note; however, they are flagged "D" due to a limitation in the LIMS.

For solid matrices, all Metals analyses (including Hg) use a Standard Reference Material for the Laboratory Control Sample (LCS). Certificate for this source material may be obtained from TASL.

For Anion analysis, samples have been started at a 2x dilution per CHPRC direction. The samples are flagged accordingly with a "D" flag if sample concentration is above the MDL/RL. Non-conformance will be included in the below section only if dilution is greater than 2x.

For WTPH methods, the lab utilizes method 8015B. Per CHPRC direction, the method name in the electronic data has been modified to read WTPH in the place of 8015B.

Per CHPRC direction, due to the short hold times for Nitrate, Nitrite and Phosphate by IC (48 hours) as well as pH analysis (24 hours), a SIR request is not needed when samples are run outside 1x hold but within 2x hold. A narrative comment will be included below if a sample is run outside the lab-specified hold time for waters.

For extractable and volatile organic analyses, several analytes are considered poor performers and will not meet CHPRC QC limits. Per CHPRC direction, the lab's statistical limits have been reported. Excursions outside these statistical limits will include a non-conformance in the sections below.

Job ID: 160-27368-1 (Continued)**Laboratory: TestAmerica St. Louis (Continued)****IV. Definitions**

QCBLK-	Quality Control Blank, Method Blank
QCLCS-	Quality Control Laboratory Control Sample, Blank Spike
DUP-	Laboratory Duplicate
MS-	Matrix Spike
MSD-	Matrix Spike Duplicate

The term "Detection Limit" used in the analytical data report refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

The following data qualifiers may be applicable to the results in this report, as appropriate.

- **B** - For inorganic analyses, the sample result is greater than the MDL but less than the RL.
- **B** - For organic analyses, Method Blank contamination. The Method Blank contains the target analyte above the MDL/RL and Method Blank is greater than 5% of the sample concentration.
- **B** - For inorganics and radiochemistry, Method Blank reported above the MDC/MDL.
- **J** - For organic analyses, the sample is estimated and less than the RL. If on Method Blank, indicates Method Blank contamination.
- **C** - For inorganic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL/RL and Method Blank concentration is greater than 5% of the sample concentration.
- **D** - For all analyses, the sample result was obtained from the analysis of a dilution. For ICPMS Metals analyses, per standard practice, all samples are initially prepared at a 2x dilution. This standard dilution does not affect reporting limits as MDL studies are also prepared in the same manner and will not be narrated below. Only dilutions above 2x will be narrated and considered a true dilution for these samples.
- **N** - For inorganics, rad and GC analyses, the spike/spike duplicate recoveries are outside QC limits.
- **T** - For GCMS analyses, the spike/spike duplicate recoveries are outside QC limits.
- **O** - For all analyses, the LCS (LCSD) recoveries are outside QC limits.
- **P** - For organic analyses (PCB/Pests only), the aroclor target analyte has greater than 25% difference for detected concentrations between the two GC columns.
- **X** - Organics and Anions IC - Sample concentration over calibration and/or surrogate recovery outside QC limits.
- **X** - Inorganics - The analyte present in the original sample is > 4x the spike concentration.
- **X** - Radiochemistry - Carrier or Tracer recovery is outside limits.
- **Z** - Sample was prepped or analyzed beyond the specified sample holding time.
- **y** - RPD is outside established limits.

Volatiles**Batch: 356505**

Isobutyl alcohol was detected in method blank MB 160-356505/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL and MB is greater than 5% the sample concentration, the result has been flagged "B".

The continuing calibration verification (CCV) associated with batch 160-356505 recovered above the upper control limit for Dichlorodifluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: (CCVIS 160-356505/3).

The continuing calibration verification (CCV) associated with batch 160-356505 did not meet the minimum relative response factor QC limits for 2-Hexanone, 2-Butanone, 4-Methyl-2-Pentanone and Acetone. A low level CCV was analyzed at the base reporting limit of 1ug/L and the affected analyte was detected. Target analytes recovering above the reporting limit will be qualified and reported. (CCVIS 160-356505/3).

Semivolatiles

Job ID: 160-27368-1 (Continued)**Laboratory: TestAmerica St. Louis (Continued)****Batch: 357801**

The 8270D CCVIS associated with batch 160-357801 recovered above the upper control limit for the following analytes: Benzo(g,h,i)perylene; Dibenz(a,h)anthracene; and Indeno[1,2,3-cd]pyrene . The samples associated with this CCVIS were non-detects for the affected analytes; therefore, the data have been reported.

The 8270D Appendix IX CCV associated with batch 160-357801 recovered above the upper control limit for the following analytes: Famphur and 4-Nitroquinoline-1-oxide. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The 8270D CCV associated with 160-357801 recovered outside of lower control limits for the following target analytes: Kepone and Hexachlorophene. These compounds are known to be poor responders; therefore, they are reported as estimated values only. B3HK75 (160-27368-10), B3HK87 (160-27368-11), B3HL41 (160-27368-13), (CCV 160-357801/5) and (MB 160-356443/1-A)

The LCS recovered outside of lower control limits for the following spike target analytes: 1,3-Dichlorobenzene; Hexachloroethane; and Hexachlorobutadiene. The samples associated with these excursions are outside of the 2X holding time window; therefore, they will not be re-prepped and re-analyzed. B3HK75 (160-27368-10), B3HK87 (160-27368-11), B3HL41 (160-27368-13) and (LCS 160-356443/2-A) These analytes have been qualified accordingly with an "o" flag in the associated samples.

The MS and the MSD % recoveries are outside of lower control limits for several spike target analytes. The samples associated with these excursions are outside of the 2X holding time window; therefore, they will not be re-prepped and re-analyzed. B3HK75 (160-27368-10), B3HK87 (160-27368-11), B3HL41 (160-27368-13), (160-27365-F-2-A), (160-27365-G-2-A MS) and (160-27365-H-2-A MSD) These analytes have been qualified accordingly with a "T" flag in the associated samples.

Pesticides**Batch: 357221**

The MS recovery was outside control limits for 4,4'-DDT. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. Results are provided with this narrative. This analyte has been qualified accordingly with an "N" flag in the associated samples.

Herbicides**Batch: 357799**

The MS spike recovery for Dinoseb is outside the QC limits. The MS/MSD RPD is outside the QC limits for all analytes. There is physical evidence of matrix interference. Results are provided with this narrative. B3HL47 (160-27368-15), (LCS 160-356962/2-A), (MB 160-356962/1-A), (160-27378-B-11-A), (160-27378-C-11-A MS) and (160-27378-D-11-A MSD) MS failure has been qualified accordingly with an "N" flag in the associated samples. MS/MSD RPD failures have been qualified "y" in the MSD.

ICP Metals**Batch: 357704**

Vanadium was detected in method blank MB 160-357365/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "B". If the associated sample reported a result above the MDL and/or RL and MB is greater than 5% the sample concentration, the result has been flagged "C".

ICPMS Metals**Batch: 358756**

Selenium was detected in method blank MB 160-357361/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "B". If the associated sample reported a result above the MDL

Job ID: 160-27368-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

and/or RL and MB is greater than 5% the sample concentration, the result has been flagged "C".

The MS/MSD/serial dilution was analyzed on a different job within the prep batch. The sample chosen for batch QC had a different analyte list and QC requirements. As a result, the MS/MSD/serial dilution for Selenium was not applied to this job. B3HL41 (160-27368-13) and B3HJR1 (160-27368-14) Method performance is demonstrated by acceptable LCS recovery.

Batch: 359021

The MS/MSD/serial dilution was analyzed on a different job within the prep batch. The sample chosen for batch QC had a different analyte list and QC requirements. As a result, the MS/MSD/serial dilution for Molybdenum and Antimony was not applied to this job. B3HL41 (160-27368-13) and B3HJR1 (160-27368-14) Method performance is demonstrated by acceptable LCS recovery.

Due to linear range check (LRC) failures, the linear range for antimony has been lowered to the concentration of the highest calibration standard (100ppb). The LCS was above the LRC, but was within acceptable limits. (LCS 160-357361/2-A)

Strontium

Prep Batch: 358545

Insufficient sample volume was available to perform a sample duplicate (DU). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) was prepared to demonstrate batch precision. B3HHD8 (160-27368-5)

Technetium-99

Prep Batch: 356972

Insufficient sample volume was available to perform a sample duplicate (DUP). A laboratory control sample duplicate (LCS/LCSD) was preformed to display batch precision.

The Laboratory Control Sample (LCS) spike recovery (121%) associated with the following samples is outside the upper QC limit of (80-120%). However, it is within in-house fixed limits of (75-125%). The high recovery may indicate a potential high bias for that analyte. The Laboratory Control Sample Duplicate (LCSD) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. There is insufficient volume remaining for re-analysis. The data have been reported. B3HDB5 (160-27368-1), B3HFB7 (160-27368-2), (LCS 160-356972/2-A), (LCSD 160-356972/3-A) and (MB 160-356972/1-A) This analyte has been qualified accordingly with an "o" flag in the associated samples.

The sample duplicate precision (RER/RPD) for sample LCSD 160-356972/2-A, associated with the following samples, is outside of the acceptance criteria of 1/20% for technetium-99 (1.27/30%). However, the RPD is within in-house limit of 40%. There is insufficient volume remaining for re-analysis. The data have been reported. B3HDB5 (160-27368-1), B3HFB7 (160-27368-2), (LCS 160-356972/2-A), (LCSD 160-356972/3-A) and (MB 160-356972/1-A) LCSD has been flagged "y" in the LCSD.

There were no observations or non-conformances associated with the following methods:

PCBs
 Mercury
 Alkalinity
 Sulfide
 Tritium

We certify that this data package is in compliance with the SOW, both technically and for completeness, including a full description of, explanation of, and corrective actions for, any and all deviations, from either the analyses requested or the case narrative requested. Release of the data contained in this hard copy data package has been authorized by the Laboratory Analytical Manager or designee and

Job ID: 160-27368-1 (Continued)**Laboratory: TestAmerica St. Louis (Continued)**

the laboratory's client services representative as verified by their signature on this report.

Reviewed and approved:

Jayna Awalt
St. Louis Project Manager

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Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-27368-1
SDG Number: SL2827

Login Number: 27368

List Source: TestAmerica St. Louis

List Number: 1

Creator: Taylor, Kristene N

Question**Answer****Comment**

Radioactivity wasn't checked or is </= background as measured by a survey meter.

True

The cooler's custody seal, if present, is intact.

True

Sample custody seals, if present, are intact.

True

The cooler or samples do not appear to have been compromised or tampered with.

True

Samples were received on ice.

True

Cooler Temperature is acceptable.

True

Cooler Temperature is recorded.

True 1.8,0.3,0.3

COC is present.

True

COC is filled out in ink and legible.

True

COC is filled out with all pertinent information.

True

Is the Field Sampler's name present on COC?

True

There are no discrepancies between the containers received and the COC.

True

Samples are received within Holding Time (excluding tests with immediate HTs)

True

Sample containers have legible labels.

True

Containers are not broken or leaking.

True

Sample collection date/times are provided.

True

Appropriate sample containers are used.

True

Sample bottles are completely filled.

True

Sample Preservation Verified.

True

There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs

True

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

True

Multiphasic samples are not present.

True

Samples do not require splitting or compositing.

True

Residual Chlorine Checked.

N/A

CH2MHill Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
A18-003-006

Page 1 of 1

Collector: MIKE ESPARZA CHPRC SL2827	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650
SAF No.: A18-003	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071
Project Title: LLWMA-3-PA, MARCH 2018	Logbook No.: HNF-N-506 99/17	Ice Chest No.: GWS-375
Shipped To (Lab): TestAmerica St. Louis	Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No.: 180094934581
Protocol Monitoring	Priority: 30 Days	Offsite Property No.: 9178

POSSIBLE SAMPLE HAZARDS/REMARK

*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HDB5	N	W	MAR 15 2018	11:01	1x250-mL P	906.0_TRITIUM_LSC: COMMON	6 Months	None
B3HDB5	N	W			1x500-mL G/P	TC99_SEP_LSC: COMMON	6 Months	HNO3 to pH <2

04/16/2018

REV.0

Relinquished By: Mike Esparza CHPRC Print First and Last Name Signature	11:30 MAR 15 2018 Date/Time	Received By: Lucky Wall CHPRC Print First and Last Name Signature	11:30 MAR 15 2018 Date/Time	Matrix * S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By: Lucky Wall CHPRC Print First and Last Name Signature	14:00 MAR 15 2018 Date/Time	Received By: FEDEX Print First and Last Name Signature	Date/Time	
Relinquished By: FEDEX Print First and Last Name Signature	Date/Time	Received By: Monica Taylor 31608 0900 Print First and Last Name Signature	Date/Time	
Relinquished By: 4182 Print First and Last Name Signature	Date/Time	Received By: Print First and Last Name Signature	Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:	

CH2MHill Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S18-003-166

Page 1 of 1

Collector: MIKE ESPARZA CHPRC	SL-2827	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650
SAF No.: S18-003		Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071
Project Title: CERCLA, MARCH 2018		Logbook No.: HNF-N-506 99 / 17	Ice Chest No.: BWS-375
Shipped To (Lab): TestAmerica St. Louis		Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No.: 180094934584
Protocol CERCLA		Priority: 30 Days	Offsite Property No.: 9178

POSSIBLE SAMPLE HAZARDS/REMARK

*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HFB7	N	W	MAR 15 2018	0931	1x500-mL G/P	TC99_SEP_LSC: COMMON	6 Months	HNO3 to pH <2

04/16/2018

REV.0

Relinquished By: <i>Mike Esparza</i> CHPRC	Print First and Last Name Signature	1130 MAR 15 2018 Date/Time	Received By: <i>Karen Waters-Husted</i> CHPRC	Print First and Last Name Signature	1130 MAR 15 2018 Date/Time	Matrix *
Relinquished By: <i>Karen Waters-Husted</i> CHPRC	Print First and Last Name Signature	MAR 15 2018 1400 Date/Time	Received By: FEDEX	Print First and Last Name Signature	Date/Time	DS = Drum Solids SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By: FED EX	Print First and Last Name Signature	Date/Time	Received By: <i>Christine Taylor</i>	Print First and Last Name Signature	31418 0900 Date/Time	
Relinquished By: FED EX	Print First and Last Name Signature	Date/Time	Received By:	Print First and Last Name Signature	Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:			Date/Time:	

921b5

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # S18-003-389
			Page 1 of 1

Collector: Kathy Turner ICPRC	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650
SAF No.: S18-003	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071
Project Title: CERCLA, MARCH 2018	Logbook No.: HNF-N-506 -100/2	Ice Chest No.: 606-320
Shipped To (Lab): TestAmerica St. Louis	Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No.: 780094934551
Protocol CERCLA	Priority: 30 Days	Offsite Property No.: 9178

POSSIBLE SAMPLE HAZARDS/REMARK *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1	SPECIAL INSTRUCTIONS N/A
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Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HHK4	X	W	3/4/18	1235	1x500-mL G/P	6020_METALS_ICPMS: Chromium (1)	6 Months	HNO3 to pH <2
B3HHK1	N	W	↓	↓	1x500-mL G/P	6020_METALS_ICPMS: Chromium (1)	6 Months	HNO3 to pH <2

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04/16/2018

REV.0

Relinquished By: <i>Kathy Turner</i> Print First and Last Name	Received By: <i>SSU-1</i> Print First and Last Name	Matrix * S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Signature MAR 14 2018	Signature MAR 14 2018	
Print First and Last Name	Date/Time	Date/Time
Relinquished By: <i>SSU-1</i> Print First and Last Name	Received By: <i>Lori Wall</i> Print First and Last Name	
Signature MAR 15 2018 1130	Signature MAR 15 2018 1130	
Print First and Last Name	Date/Time	Date/Time
Relinquished By: <i>Lori Wall</i> Print First and Last Name	Received By: <i>FEDEX</i> Print First and Last Name	
Signature MAR 15 2018 1400	Signature	
Print First and Last Name	Date/Time	Date/Time
Relinquished By: <i>FED EX</i> Print First and Last Name	Received By: <i>Christene Taylor</i> Print First and Last Name	
Signature	Signature	
Print First and Last Name	Date/Time	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:
		Date/Time:

CH2MHill Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S18-003-400

Page 1 of 1

Collector: Juan Aguilar /CHPRC	812827	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650
SAF No.: S18-003		Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071
Project Title: CERCLA, MARCH 2018		Logbook No.: HNF-N-506-987S 8	Ice Chest No.: GWS-375
Shipped To (Lab): TestAmerica St. Louis		Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No.: 780094934584
Protocol CERCLA		Priority: 30 Days	Offsite Property No.: 9178

POSSIBLE SAMPLE HAZARDS/REMARK

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HHD8	N	W	3-15-18	1016	1x1-L G/P	SRISO_SEP_PRECIP_GPC: COMMON	6 Months	HNO3 to pH <2

04/16/2018

REV.0

Relinquished By: Juan Aguilar /CHPRC	Print First and Last Name	Signature	Date/Time	Received By: Tim Callaway /CHPRC	Print First and Last Name	Signature	Date/Time	Matrix *
MAR 15 2018 1150				MAR 15 2018 1150				S = Soil DS = Drum Solids
Relinquished By: Tim Callaway /CHPRC	Print First and Last Name	Signature	Date/Time	Received By: Lesty Wall /CHPRC	Print First and Last Name	Signature	Date/Time	SE = Sediment DL = Drum Liquid
MAR 15 2018 1225				MAR 15 2018 1225				SO = Solid T = Tissue
Relinquished By: Lesty Wall /CHPRC	Print First and Last Name	Signature	Date/Time	Received By: FEDEX	Print First and Last Name	Signature	Date/Time	SL = Sludge WI = Wipe
MAR 15 2018 1400								W = Water L = Liquid
Relinquished By: FED EX	Print First and Last Name	Signature	Date/Time	Received By: Christene Taylor	Print First and Last Name	Signature	Date/Time	O = Oil V = Vegetation
								A = Air X = Other
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):				Disposed By:			Date/Time:

CH2MHill Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S18-003-412

Page 1 of 1

Collector: MIKE ESPARZA CHPRC	912827	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650
SAF No.: S18-003		Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071
Project Title: CERCLA, MARCH 2018		Logbook No.: HNF-N-506 99 117	Ice Chest No.: GWS-3TS
Shipped To (Lab): TestAmerica St. Louis		Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No.: 780094934584
Protocol CERCLA		Priority: 30 Days	Offsite Property No.: 91178

POSSIBLE SAMPLE HAZARDS/REMARK

*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HFV4	N	W	MAR 15 2018	1107	5x40-mL aGs*	8260_VOA_GCMS_IX: COMMON REV 1	14 Days	HCl or H2SO4 to pH <2 / Cool <=6C

04/16/2018

REV.0

Relinquished By: <i>Mike Esparza</i> Print First and Last Name Signature	MAR 15 2018 Date/Time	Received By: <i>Karen Waters-Husted</i> Print First and Last Name Signature	MAR 15 2018 Date/Time	Matrix *
Relinquished By: <i>Karen Waters-Husted</i> Print First and Last Name Signature	MAR 15 2018 1400 Date/Time	Received By: FEDEX Print First and Last Name Signature	Date/Time	DS = Drum Solids SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By: <i>FED EX</i> Print First and Last Name Signature	Date/Time	Received By: <i>Christene Taylor</i> Print First and Last Name Signature	31Mar0900 Date/Time	
Relinquished By: <i>FED EX</i> Print First and Last Name Signature	Date/Time	Received By:		
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:		Date/Time:

CH2MHill Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S18-003-423

Page 1 of 1

Collector: MIKE ESPARZA CHPRC	SL2827	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650
SAF No.: S18-003		Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071
Project Title: CERCLA, MARCH 2018		Logbook No.: HNF-N-506 99 / 17	Ice Chest No.: GWS-375
Shipped To (Lab): TestAmerica St. Louis		Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No.: 180094934586
Protocol CERCLA		Priority: 30 Days	Offsite Property No.: 9178

POSSIBLE SAMPLE HAZARDS/REMARK

*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HFB8	N	W	MAR 15 2018	0931	5x40-mL aGs*	8260_VOA_GCMS_IX: COMMON REV 1	14 Days	HCl or H2SO4 to pH <2 / Cool <=6C

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REV.0

Relinquished By: Lesly Wall CHPRC	Print First and Last Name Signature	MAR 15 2018 Date/Time	Received By: Lesly Wall CHPRC	Print First and Last Name Signature	MAR 15 2018 Date/Time	Matrix * S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By: Lesly Wall CHPRC	Print First and Last Name Signature	MAR 15 2018 Date/Time	Received By: FEDEX	Print First and Last Name Signature	Date/Time	
Relinquished By: FED EX	Print First and Last Name Signature	Date/Time	Received By: Kristene Taylor	Print First and Last Name Signature	MAR 16 2018 Date/Time	
Relinquished By: FED EX	Print First and Last Name Signature	Date/Time	Received By:	Print First and Last Name Signature	Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):			Disposed By:	Date/Time:	

CH2MHill Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S18-003-433

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Collector: Kathy Turner /CHPRC	SL2824	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650
SAF No.: S18-003		Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071
Project Title: CERCLA, MARCH 2018		Logbook No.: HNF-N-506-100/3	Ice Chest No.: 605-320
Shipped To (Lab): TestAmerica St. Louis		Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No.: 780094934551
Protocol CERCLA		Priority: 30 Days	Offsite Property No.: 9178

POSSIBLE SAMPLE HAZARDS/REMARK

*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HHN6	Y	W	3/14/18	1253	1x500-mL G/P	6010_METALS_ICP: GW 04; 6020_METALS_ICPMS: Chromium (1)	6 Months	HNO3 to pH <2
B3HL07	N	W	↓	↓	1x500-mL G/P	6010_METALS_ICP: GW 04; 6020_METALS_ICPMS: Chromium (1)	6 Months	HNO3 to pH <2

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Relinquished By: Kathy Turner /CHPRC Print First and Last Name Signature	Date/Time: MAR 14 2018	Received By: SSU-1 Print First and Last Name Signature	Date/Time: MAR 14 2018	Matrix * S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By: SSU-1 Print First and Last Name Signature	Date/Time: MAR 15 2018 1130	Received By: Kathy Wall /CHPRC Print First and Last Name Signature	Date/Time: MAR 15 2018 1130	
Relinquished By: Kathy Wall /CHPRC Print First and Last Name Signature	Date/Time: MAR 15 2018 1400	Received By: FEDEX Print First and Last Name Signature	Date/Time	
Relinquished By: FEDEX Print First and Last Name Signature	Date/Time	Received By: Kristene Taylor /CHPRC Print First and Last Name Signature	Date/Time: 3/16/18 0900	
15 of 82 FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:	A-6004-842 (REV 3)

CH2MHill Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

86125
C.O.C. #
W18-003-200

Page 1 of 1

Collector: <i>Ivan Scheaffer /CHPRC</i>	<i>SL2827</i>	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650
SAF No.: W18-003		Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071
Project Title: RCRA, MARCH 2018		Logbook No.: HNF-N-506-98/5Y	Ice Chest No.: <i>605-375</i>
Shipped To (Lab): TestAmerica St. Louis		Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No.: <i>780094934584</i>
Protocol RCRA		Priority: 30 Days	Offsite Property No.: <i>9178</i>

POSSIBLE SAMPLE HAZARDS/REMARK

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HK75	N	W	3-15-18	1232	4x1-L aG	8270_SVOA_GCMS_IX: COMMON REV 1	7/40 Days	Cool <=6C
B3HK75	N	W	3-15-18	1232	1x1-L G/P	9034_SULFIDE: COMMON	7 Days	ZnAc+NaOH to pH > 9 / Cool <=6C

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Relinquished By: <i>Ivan Scheaffer /CHPRC</i>	<i>Dawn H. Scheaffer</i>	MAR 15 2018 1325	Received By: <i>Kathy Wall</i>	<i>Kathy Wall</i>	MAR 15 2018	Matrix *
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time	S = Soil DS = Drum Solids
Relinquished By: <i>Kathy Wall</i>	<i>Kathy Wall</i>	MAR 15 2018 1400	Received By: FEDEX			SE = Sediment DL = Drum Liquid
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time	SO = Solid T = Tissue
Relinquished By: FEDEX			Received By: <i>Christene Taylor</i>	<i>K</i>	31-18 0900	SL = Sludge WI = Wipe
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time	W = Water L = Liquid
Relinquished By: FEDEX			Received By: <i>Christene Taylor</i>	<i>K</i>	31-18 0900	O = Oil V = Vegetation
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time	A = Air X = Other
16 of 82						
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):				Disposed By:	Date/Time:

REV.0

CH2MHill Plateau
Remediation Company

88-185
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
W18-003-201

Page 1 of 1

Collector: Juan Aguilar /CHPRC	SL2827	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650
SAF No.: W18-003		Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071
Project Title: RCRA, MARCH 2018		Logbook No.: HNF-N-506-98158	Ice Chest No.: GWS-571
Shipped To (Lab): TestAmerica St. Louis		Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No.: 780088616821
Protocol RCRA		Priority: 30 Days	Offsite Property No.: 9177

POSSIBLE SAMPLE HAZARDS/REMARK

*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HK87	N	W	3-15-18	0806	1x250-mL G/P	310.1_ALKALINITY: COMMON ✓	14 Days	Cool <=6C
B3HK87	N	W			5x40-mL aGs*	8260_VOA_GCMS_IK: COMMON REV 1 ✓	14 Days	HCl or H ₂ SO ₄ to pH <2 / Cool <=6C
B3HK87	N	W			4x1-L aG	8270_SVOA_GCMS_IK: COMMON REV 1 ✓	7/40 Days	Cool <=6C
B3HK87	N	W	3-15-18	0806	1x1-L G/P	9034_SULFIDE: COMMON ✓	7 Days	ZnAc+NaOH to pH > 9 / Cool <=6C

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REV.0

Relinquished By: Juan Aguilar /CHPRC	Print First and Last Name	Signature	Date/Time: MAR 15 2018 0930	Received By: Tim Callaway /CHPRC	Print First and Last Name	Signature	Date/Time: MAR 15 2018 0930	Matrix *
Relinquished By: Tim Callaway /CHPRC	Print First and Last Name	Signature	Date/Time: MAR 15 2018 1015	Received By: Troy Bacon /CHPRC	Troy L. Bacon	Signature	Date/Time: MAR 15 2018 1015	S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By: Troy Bacon /CHPRC	Print First and Last Name	Signature	Date/Time: MAR 15 2018 1400	Received By: FEDEX				
Relinquished By: FED EX	Print First and Last Name	Signature	Date/Time: MAR 16 2018 0900	Received By: Kristene Taylor	K. Taylor	Signature	Date/Time: MAR 16 2018 0900	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):				Disposed By:			Date/Time:

CH2MHill Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
W18-003-238

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Collector: Juan Aguilar JCHPRC	812827	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650
SAF No.: W18-003		Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071
Project Title: RCRA, MARCH 2018		Logbook No.: HNF-N-506-98158	Ice Chest No.: 605-375
Shipped To (Lab): TestAmerica St. Louis		Method of Shipment: Commercial Carrier	Bill of Lading/Air Bill No.: 780094934584
Protocol: RCRA		Priority: 30 Days	Offsite Property No.: 9178

POSSIBLE SAMPLE HAZARDS/REMARK

*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HL39	N	W	3-15-18	1016	1x250-mL G/P	310.1_ALKALINITY: COMMON	14 Days	Cool <=6C

04/16/2018

REV.0

Relinquished By: Juan Aguilar JCHPRC	Print First and Last Name	Signature	Date/Time: MAR 15 2018 1150	Received By: Tim Callaway JCHPRC	Print First and Last Name	Signature	Date/Time: MAR 15 2018 1150	Matrix *
Relinquished By: Tim Callaway JCHPRC	Print First and Last Name	Signature	Date/Time: MAR 15 2018 1225	Received By: Lesly Wall JCHPRC	Print First and Last Name	Signature	Date/Time: MAR 15 2018 1225	S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By: Lesly Wall JCHPRC	Print First and Last Name	Signature	Date/Time: MAR 15 2018 1400	Received By: FEDEX	Print First and Last Name	Signature	Date/Time	
Relinquished By: FEDEX	Print First and Last Name	Signature	Date/Time	Received By: Kristene Taylor K	Print First and Last Name	Signature	Date/Time: 31W18 0900	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):				Disposed By:			Date/Time:

CH2MHill Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
W18-003-239

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Collector: Juan Aguilar JCHPRC	<i>SL7827</i>	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650
SAF No.: W18-003		Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071
Project Title: RCRA, MARCH 2018		Logbook No.: HNF-N-506-98158	Ice Chest No.: GWS-571
Shipped To (Lab): TestAmerica St. Louis		Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No.: 780088696821
Protocol RCRA		Priority: 30 Days	Offsite Property No.: 9177

POSSIBLE SAMPLE HAZARDS/REMARK

*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HL41	N	W	3-15-18	0901	4x1-L aG	8270_SVOA_GCMS_IX: COMMON REV 1 ✓	7/40 Days	Cool <=6C
B3HL41	N	W	3-15-18	0901	1x500-mL G/P	7470_MERCURY_CV: COMMON (AQUEOUS); ✓ 6010_METALS_ICP: GW 04; ✓ 6020_METALS_ICPMS: GW 01	28 Days	HNO3 to pH <2
B3HJR1	V	W	3-15-18	0901	1x500-mL G/P	7470_MERCURY_CV: COMMON (AQUEOUS); 6010_METALS_ICP: GW 04; 6020_METALS_ICPMS: GW 01	28 Days	HNO3 to pH <2

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04/16/2018

Relinquished By: Juan Aguilar JCHPRC	Print First and Last Name	Signature	Date/Time	Received By: Tim Callaway JCHPRC	Print First and Last Name	Signature	Date/Time	Matrix *
MAR 15 2018 0930				<i>Tim Callaway</i>	<i>Callaway</i>		MAR 15 2018 0930	S = Soil DS = Drum Solids
Relinquished By: Tim Callaway JCHPRC	Print First and Last Name	Signature	Date/Time	Received By: Troy Bacon JCHPRC	Print First and Last Name	Signature	Date/Time	SE = Sediment DL = Drum Liquid
<i>Callaway</i>				<i>Troy L. Bacon</i>	<i>Troy L. Bacon</i>		MAR 15 2018 1015	SO = Solid T = Tissue
Relinquished By: Troy Bacon JCHPRC	Print First and Last Name	Signature	Date/Time	Received By: FEDEX				SL = Sludge WI = Wipe
<i>Troy L. Bacon</i>								W = Water L = Liquid
Relinquished By: FED EX	Print First and Last Name	Signature	Date/Time	Received By: Kristen Taylor	Print First and Last Name	Signature	Date/Time	O = Oil V = Vegetation
				<i>Kristen Taylor</i>				A = Air X = Other
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):				Disposed By:			Date/Time:

REV.0

CH2MHill Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
W18-003-243

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Collector: Juan Aguilar CHPRC	812827	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650
SAF No.: W18-003		Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071
Project Title: RCRA, MARCH 2018		Logbook No.: HNF-N-506 - 98158	Ice Chest No.: GWS-320
Shipped To (Lab): TestAmerica St. Louis		Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No.: 780094934551
Protocol RCRA		Priority: 30 Days	Offsite Property No.: 9178

POSSIBLE SAMPLE HAZARDS/REMARK

*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HL47	N	W	3-15-18	0806	4x1-L aG	8081_PEST_GC: CH 01; 8081_PEST_GC: COMMON ✓	7/40 Days	Cool <=6C
B3HL47	N	W	3-15-18	0806	4x1-L aG	8082_PCB_GC: COMMON ✓	None	Cool <=6C
B3HL47	N	W	3-15-18	0806	4x1-L aG	8151_HERBICIDE_GC: COMMON	7/40 Days	Cool <=6C

04/16/2018

Relinquished By: Juan Aguilar CHPRC	Print First and Last Name	Signature	Date/Time	Received By: Tim Callaway CHPRC	Print First and Last Name	Signature	Date/Time	Matrix *
Relinquished By: Tim Callaway CHPRC	Print First and Last Name	Signature	Date/Time	Received By: Troy Bacon CHPRC	Troy L. Bacon	Signature	MAR 15 2018 0930	DS = Drum Solids SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By: Troy Bacon CHPRC	Print First and Last Name	Signature	Date/Time	Received By: FEDEX				
Relinquished By: FED EX	Print First and Last Name	Signature	Date/Time	Received By: Kristene Taylor	Kristene Taylor	Signature	31618 0900	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):			Disposed By:				Date/Time:

REV.0



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Ship date:

Thu 3/15/2018

Actual delivery:

Fri 3/16/2018 8:56 am

Richland, WA US

Delivered

EARTH CITY, MO US

Signed for by: K.TAYLOR

2 Piece shipment

Travel History

Date/Time	Activity	Location
- 3/16/2018 - Friday		
8:56 am	Delivered	EARTH CITY, MO
6:49 am	On FedEx vehicle for delivery	EARTH CITY, MO
6:43 am	At local FedEx facility	EARTH CITY, MO
5:16 am	At destination sort facility	BERKELEY, MO
4:27 am	Departed FedEx location	MEMPHIS, TN
12:41 am	Arrived at FedEx location	MEMPHIS, TN
- 3/15/2018 - Thursday		
4:47 pm	Left FedEx origin facility	PASCO, WA
3:40 pm	Shipment information sent to FedEx	
3:18 pm	Picked up	PASCO, WA

Shipment Facts

Tracking Number	780094934551	Service	FedEx Priority Overnight
Master tracking number	780094934551	Weight	92 lbs / 41.73 kgs
Dimensions	28x15x18 in.	Signature services	Direct signature required
Delivered To	Shipping/Receiving	Total pieces	2
Total shipment weight	178 lbs / 80.74 kgs	Terms	Third Party
Shipper reference	ptr# 9178	Packaging	Your Packaging
Special handling section	Deliver Weekday, Additional Handling Surcharge, Direct Signature Required	Standard transit	3/16/2018 by 10:30 am

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Ship date:

Thu 3/15/2018

Actual delivery:

Fri 3/16/2018 8:56 am

Richland, WA US

Delivered*Signed for by: K.TAYLOR*

EARTH CITY, MO US

2 Piece shipment

Travel History

Date/Time	Activity	Location
- 3/16/2018 - Friday		
8:56 am	Delivered	EARTH CITY, MO
6:57 am	On FedEx vehicle for delivery	EARTH CITY, MO
6:51 am	At local FedEx facility	EARTH CITY, MO
5:16 am	At destination sort facility	BERKELEY, MO
4:27 am	Departed FedEx location	MEMPHIS, TN
12:41 am	Arrived at FedEx location	MEMPHIS, TN
- 3/15/2018 - Thursday		
4:47 pm	Left FedEx origin facility	PASCO, WA
3:40 pm	Shipment information sent to FedEx	
3:18 pm	Picked up	PASCO, WA

Shipment Facts

Tracking Number	780094934584	Service	FedEx Priority Overnight
Master tracking number	780094934551	Weight	86 lbs / 39.01 kgs
Dimensions	28x16x16 in.	Signature services	Direct signature required
Delivered To	Shipping/Receiving	Total pieces	2
Total shipment weight	86 lbs / 39.01 kgs	Terms	Third Party
Shipper reference	ptr# 9178	Packaging	Your Packaging
Special handling section	Deliver Weekday, Additional Handling Surcharge, Direct Signature Required	Standard transit	3/16/2018 by 10:30 am

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IMPORTANT!FedEx is closely monitoring the winter storms across portions of the U.S. [Learn More](#)**FedEx® Tracking****780088696821**

Ship date:

Thu 3/15/2018

Actual delivery:

Fri 3/16/2018 8:56 am

Richland, WA US

Delivered

EARTH CITY, MO US

*Signed for by: K. TAYLOR***Travel History**

Date/Time	Activity	Location
- 3/16/2018 - Friday		
8:56 am	Delivered	EARTH CITY, MO
6:50 am	On FedEx vehicle for delivery	EARTH CITY, MO
6:43 am	At local FedEx facility	EARTH CITY, MO
5:16 am	At destination sort facility	BERKELEY, MO
4:27 am	Departed FedEx location	MEMPHIS, TN
12:41 am	Arrived at FedEx location	MEMPHIS, TN
- 3/15/2018 - Thursday		
4:47 pm	Left FedEx origin facility	PASCO, WA
1:17 pm	Shipment information sent to FedEx	
11:19 am	Picked up	PASCO, WA

Shipment Facts

Tracking Number	780088696821	Service	FedEx Priority Overnight
Weight	88 lbs / 39.92 kgs	Signature services	Direct signature required
Delivered To	Shipping/Receiving	Total pieces	1
Total shipment weight	88 lbs / 39.92 kgs	Terms	Third Party
Shipper reference	pt# 9177/cooler# gws-571	Packaging	Your Packaging
Special handling section	Deliver Weekday, Direct Signature Required	Standard transit	3/16/2018 by 10:30 am

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Qualifiers**GC/MS VOA**

Qualifier	Qualifier Description
U	Analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Analyte was found in the associated method blank as well as in the sample.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
T	MS, MSD: Recovery exceeds upper or lower control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Analyzed for but not detected.
o	LCS, LCSD: Recovery exceeds upper or lower control limits.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.

GC Semi VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.
N	MS, MSD: Spike recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
y	Duplicate analysis not within control limits.

Metals

Qualifier	Qualifier Description
U	Analyzed for but not detected.
B	Estimated result. Result is less than the RL, but greater than MDL
C	The analyte was detected in both the sample and the associated QC blank, and the sample concentration was </= 5X the blank concentration.
D	The reported value is from a dilution.

General Chemistry

Qualifier	Qualifier Description
U	Analyzed for but not detected.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
o	LCS, LCSD: Recovery exceeds upper or lower control limits.
y	Duplicate analysis not within control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
%	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)

Glossary (Continued)**Abbreviation** These commonly used abbreviations may or may not be present in this report.

DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	SW846	TAL SL
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SL
8081B	Organochlorine Pesticides (GC)	SW846	TAL SL
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL SL
8151A	Herbicides (GC)	SW846	TAL SL
6010C	Metals (ICP)	SW846	TAL SL
6020A	Metals (ICP/MS)	SW846	TAL SL
7470A	Mercury (CVAA)	SW846	TAL SL
310.1	Alkalinity	MCAWW	TAL SL
9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	TAL SL
906.0	Tritium, Total (LSC)	EPA	TAL SL
SR-03-RC	Total Beta Strontium (GFPC)	DOE	TAL SL
TC-02-RC	Technetium-99 (LSC)	DOE	TAL SL

Protocol References:

DOE = U.S. Department of Energy

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

04/16/2018
Sample Summary**REV.0**Client: CH2M Hill Plateau Remediation Company
Project/Site: A18-003 / S18-003 / W18-003TestAmerica Job ID: 160-27368-1
SDG: SL2827

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	
160-27368-1	B3HDB5	Water	03/15/18 11:07	03/16/18 09:00	1
160-27368-2	B3HFB7	Water	03/15/18 09:31	03/16/18 09:00	2
160-27368-3	B3HHK4	Water	03/04/18 12:35	03/16/18 09:00	3
160-27368-4	B3HHK1	Water	03/04/18 12:35	03/16/18 09:00	4
160-27368-5	B3HHD8	Water	03/15/18 10:16	03/16/18 09:00	5
160-27368-6	B3HFV4	Water	03/15/18 11:07	03/16/18 09:00	6
160-27368-7	B3HFB8	Water	03/15/18 09:31	03/16/18 09:00	7
160-27368-8	B3HHN6	Water	03/14/18 12:53	03/16/18 09:00	8
160-27368-9	B3HL07	Water	03/14/18 12:53	03/16/18 09:00	9
160-27368-10	B3HK75	Water	03/15/18 12:32	03/16/18 09:00	10
160-27368-11	B3HK87	Water	03/15/18 08:06	03/16/18 09:00	11
160-27368-12	B3HL39	Water	03/15/18 10:16	03/16/18 09:00	12
160-27368-13	B3HL41	Water	03/15/18 09:01	03/16/18 09:00	
160-27368-14	B3HJR1	Water	03/15/18 09:01	03/16/18 09:00	
160-27368-15	B3HL47	Water	03/15/18 08:06	03/16/18 09:00	

TestAmerica St. Louis

Method: 8260C - Volatile Organic Compounds (GC/MS)**Client Sample ID: B3HFV4****Date Collected: 03/15/18 11:07****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-6**
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.12	U	1.0	0.12	ug/L			03/20/18 12:24	1
1,1,1-Trichloroethane	0.17	U	1.0	0.17	ug/L			03/20/18 12:24	1
1,1,2,2-Tetrachloroethane	0.10	U	1.0	0.10	ug/L			03/20/18 12:24	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			03/20/18 12:24	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			03/20/18 12:24	1
1,1-Dichloroethene	0.10	U	1.0	0.10	ug/L			03/20/18 12:24	1
1,2,3-Trichloropropane	0.18	U	1.0	0.18	ug/L			03/20/18 12:24	1
1,2-Dibromo-3-Chloropropane	0.41	U	1.0	0.41	ug/L			03/20/18 12:24	1
1,2-Dibromoethane (EDB)	0.13	U	1.0	0.13	ug/L			03/20/18 12:24	1
1,2-Dichloroethane	0.22	U	1.0	0.22	ug/L			03/20/18 12:24	1
1,2-Dichloropropane	0.10	U	1.0	0.10	ug/L			03/20/18 12:24	1
1,4-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			03/20/18 12:24	1
2-Butanone (MEK)	0.47	U	5.0	0.47	ug/L			03/20/18 12:24	1
2-Hexanone	0.25	U	5.0	0.25	ug/L			03/20/18 12:24	1
4-Methyl-2-pentanone (MIBK)	0.22	U	5.0	0.22	ug/L			03/20/18 12:24	1
Acetone	1.9	J	2.0	0.55	ug/L			03/20/18 12:24	1
Acetonitrile	3.7	U	10	3.7	ug/L			03/20/18 12:24	1
Acrolein	2.8	U	10	2.8	ug/L			03/20/18 12:24	1
Acrylonitrile	0.73	U	10	0.73	ug/L			03/20/18 12:24	1
Allyl chloride	0.10	U	2.0	0.10	ug/L			03/20/18 12:24	1
Benzene	0.10	U	1.0	0.10	ug/L			03/20/18 12:24	1
Bromodichloromethane	0.14	U	1.0	0.14	ug/L			03/20/18 12:24	1
Bromoform	0.17	U	1.0	0.17	ug/L			03/20/18 12:24	1
Bromomethane	0.25	U	2.0	0.25	ug/L			03/20/18 12:24	1
Carbon disulfide	0.10	U	1.0	0.10	ug/L			03/20/18 12:24	1
Carbon tetrachloride	0.18	U	1.0	0.18	ug/L			03/20/18 12:24	1
Chlorobenzene	0.11	U	1.0	0.11	ug/L			03/20/18 12:24	1
Chloroethane	0.16	U	2.0	0.16	ug/L			03/20/18 12:24	1
Chloroform	0.10	U	1.0	0.10	ug/L			03/20/18 12:24	1
Chloromethane	0.10	U	2.0	0.10	ug/L			03/20/18 12:24	1
Chloroprene	0.16	U	1.0	0.16	ug/L			03/20/18 12:24	1
cis-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			03/20/18 12:24	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			03/20/18 12:24	1
Dibromochloromethane	0.14	U	1.0	0.14	ug/L			03/20/18 12:24	1
Dibromomethane	0.21	U	1.0	0.21	ug/L			03/20/18 12:24	1
Dichlorodifluoromethane	0.14	U	2.0	0.14	ug/L			03/20/18 12:24	1
Ethyl Cyanide	1.4	U	10	1.4	ug/L			03/20/18 12:24	1
Ethyl methacrylate	0.17	U	1.0	0.17	ug/L			03/20/18 12:24	1
Ethylbenzene	0.12	U	1.0	0.12	ug/L			03/20/18 12:24	1
Iodomethane	0.10	U	2.0	0.10	ug/L			03/20/18 12:24	1
Isobutyl alcohol	8.3	U	80	8.3	ug/L			03/20/18 12:24	1
Methacrylonitrile	1.2	U	10	1.2	ug/L			03/20/18 12:24	1
Methyl methacrylate	0.27	U	2.0	0.27	ug/L			03/20/18 12:24	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			03/20/18 12:24	1
Styrene	0.13	U	1.0	0.13	ug/L			03/20/18 12:24	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			03/20/18 12:24	1
Toluene	0.14	U	1.0	0.14	ug/L			03/20/18 12:24	1
trans-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			03/20/18 12:24	1
trans-1,3-Dichloropropene	0.10	U	1.0	0.10	ug/L			03/20/18 12:24	1

Client: CH2M Hill Plateau Remediation Company
Project/Site: A18-003 / S18-003 / W18-003TestAmerica Job ID: 160-27368-1
SDG: SL2827**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)****Client Sample ID: B3HFV4****Date Collected: 03/15/18 11:07****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-6**
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	0.29	U	2.0	0.29	ug/L			03/20/18 12:24	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			03/20/18 12:24	1
Trichloromonofluoromethane	0.11	U	1.0	0.11	ug/L			03/20/18 12:24	1
Vinyl acetate	0.18	U	2.0	0.18	ug/L			03/20/18 12:24	1
Vinyl chloride	0.19	U	2.0	0.19	ug/L			03/20/18 12:24	1
Xylenes, Total	0.27	U	3.0	0.27	ug/L			03/20/18 12:24	1

Tentatively Identified Compound**Tentatively Identified Compound****Surrogate**

	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		75 - 129		03/20/18 12:24	1
4-Bromofluorobenzene (Surr)	110		81 - 130		03/20/18 12:24	1
Dibromofluoromethane (Surr)	89		81 - 124		03/20/18 12:24	1
Toluene-d8 (Surr)	102		87 - 128		03/20/18 12:24	1

Client Sample ID: B3HFB8**Date Collected: 03/15/18 09:31****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-7**
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.12	U	1.0	0.12	ug/L			03/20/18 12:49	1
1,1,1-Trichloroethane	0.17	U	1.0	0.17	ug/L			03/20/18 12:49	1
1,1,2,2-Tetrachloroethane	0.10	U	1.0	0.10	ug/L			03/20/18 12:49	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			03/20/18 12:49	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			03/20/18 12:49	1
1,1-Dichloroethene	0.10	U	1.0	0.10	ug/L			03/20/18 12:49	1
1,2,3-Trichloropropane	0.18	U	1.0	0.18	ug/L			03/20/18 12:49	1
1,2-Dibromo-3-Chloropropane	0.41	U	1.0	0.41	ug/L			03/20/18 12:49	1
1,2-Dibromoethane (EDB)	0.13	U	1.0	0.13	ug/L			03/20/18 12:49	1
1,2-Dichloroethane	0.22	U	1.0	0.22	ug/L			03/20/18 12:49	1
1,2-Dichloropropane	0.10	U	1.0	0.10	ug/L			03/20/18 12:49	1
1,4-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			03/20/18 12:49	1
2-Butanone (MEK)	0.47	U	5.0	0.47	ug/L			03/20/18 12:49	1
2-Hexanone	0.25	U	5.0	0.25	ug/L			03/20/18 12:49	1
4-Methyl-2-pentanone (MIBK)	0.22	U	5.0	0.22	ug/L			03/20/18 12:49	1
Acetone	5.9		2.0	0.55	ug/L			03/20/18 12:49	1
Acetonitrile	3.7	U	10	3.7	ug/L			03/20/18 12:49	1
Acrolein	2.8	U	10	2.8	ug/L			03/20/18 12:49	1
Acrylonitrile	0.73	U	10	0.73	ug/L			03/20/18 12:49	1
Allyl chloride	0.10	U	2.0	0.10	ug/L			03/20/18 12:49	1
Benzene	0.10	U	1.0	0.10	ug/L			03/20/18 12:49	1
Bromodichloromethane	0.14	U	1.0	0.14	ug/L			03/20/18 12:49	1
Bromoform	0.17	U	1.0	0.17	ug/L			03/20/18 12:49	1
Bromomethane	0.25	U	2.0	0.25	ug/L			03/20/18 12:49	1
Carbon disulfide	0.10	U	1.0	0.10	ug/L			03/20/18 12:49	1
Carbon tetrachloride	0.82	J	1.0	0.18	ug/L			03/20/18 12:49	1
Chlorobenzene	0.11	U	1.0	0.11	ug/L			03/20/18 12:49	1
Chloroethane	0.16	U	2.0	0.16	ug/L			03/20/18 12:49	1
Chloroform	1.0		1.0	0.10	ug/L			03/20/18 12:49	1
Chloromethane	0.10	U	2.0	0.10	ug/L			03/20/18 12:49	1

TestAmerica St. Louis

04/16/2018
Client Sample Results

REV.0

Client: CH2M Hill Plateau Remediation Company
Project/Site: A18-003 / S18-003 / W18-003

TestAmerica Job ID: 160-27368-1
SDG: SL2827

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B3HFB8

Date Collected: 03/15/18 09:31

Date Received: 03/16/18 09:00

Lab Sample ID: 160-27368-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroprene	0.16	U	1.0	0.16	ug/L			03/20/18 12:49	1
cis-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			03/20/18 12:49	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			03/20/18 12:49	1
Dibromochloromethane	0.14	U	1.0	0.14	ug/L			03/20/18 12:49	1
Dibromomethane	0.21	U	1.0	0.21	ug/L			03/20/18 12:49	1
Dichlorodifluoromethane	0.14	U	2.0	0.14	ug/L			03/20/18 12:49	1
Ethyl Cyanide	1.4	U	10	1.4	ug/L			03/20/18 12:49	1
Ethyl methacrylate	0.17	U	1.0	0.17	ug/L			03/20/18 12:49	1
Ethylbenzene	0.12	U	1.0	0.12	ug/L			03/20/18 12:49	1
Iodomethane	0.10	U	2.0	0.10	ug/L			03/20/18 12:49	1
Isobutyl alcohol	16	J B	80	8.3	ug/L			03/20/18 12:49	1
Methacrylonitrile	1.2	U	10	1.2	ug/L			03/20/18 12:49	1
Methyl methacrylate	0.27	U	2.0	0.27	ug/L			03/20/18 12:49	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			03/20/18 12:49	1
Styrene	0.13	U	1.0	0.13	ug/L			03/20/18 12:49	1
Tetrachloroethylene	0.18	U	1.0	0.18	ug/L			03/20/18 12:49	1
Toluene	0.14	U	1.0	0.14	ug/L			03/20/18 12:49	1
trans-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			03/20/18 12:49	1
trans-1,3-Dichloropropene	0.10	U	1.0	0.10	ug/L			03/20/18 12:49	1
trans-1,4-Dichloro-2-butene	0.29	U	2.0	0.29	ug/L			03/20/18 12:49	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			03/20/18 12:49	1
Trichloromonofluoromethane	0.11	U	1.0	0.11	ug/L			03/20/18 12:49	1
Vinyl acetate	0.18	U	2.0	0.18	ug/L			03/20/18 12:49	1
Vinyl chloride	0.19	U	2.0	0.19	ug/L			03/20/18 12:49	1
Xylenes, Total	0.27	U	3.0	0.27	ug/L			03/20/18 12:49	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					03/20/18 12:49	1
Surrogate									
Surrogate									
1,2-Dichloroethane-d4 (Surr)	88		75 - 129				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		81 - 130					03/20/18 12:49	1
Dibromofluoromethane (Surr)	91		81 - 124					03/20/18 12:49	1
Toluene-d8 (Surr)	102		87 - 128					03/20/18 12:49	1

Client Sample ID: B3HK87

Date Collected: 03/15/18 08:06

Date Received: 03/16/18 09:00

Lab Sample ID: 160-27368-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.12	U	1.0	0.12	ug/L			03/20/18 13:15	1
1,1,1-Trichloroethane	0.17	U	1.0	0.17	ug/L			03/20/18 13:15	1
1,1,2,2-Tetrachloroethane	0.10	U	1.0	0.10	ug/L			03/20/18 13:15	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			03/20/18 13:15	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			03/20/18 13:15	1
1,1-Dichloroethene	0.10	U	1.0	0.10	ug/L			03/20/18 13:15	1
1,2,3-Trichloropropane	0.18	U	1.0	0.18	ug/L			03/20/18 13:15	1
1,2-Dibromo-3-Chloropropane	0.41	U	1.0	0.41	ug/L			03/20/18 13:15	1
1,2-Dibromoethane (EDB)	0.13	U	1.0	0.13	ug/L			03/20/18 13:15	1
1,2-Dichloroethane	0.22	U	1.0	0.22	ug/L			03/20/18 13:15	1
1,2-Dichloropropane	0.10	U	1.0	0.10	ug/L			03/20/18 13:15	1

TestAmerica St. Louis

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**Client Sample ID: B3HK87****Date Collected: 03/15/18 08:06****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-11****Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			03/20/18 13:15	1
2-Butanone (MEK)	0.47	U	5.0	0.47	ug/L			03/20/18 13:15	1
2-Hexanone	0.25	U	5.0	0.25	ug/L			03/20/18 13:15	1
4-Methyl-2-pentanone (MIBK)	0.22	U	5.0	0.22	ug/L			03/20/18 13:15	1
Acetone	4.3		2.0	0.55	ug/L			03/20/18 13:15	1
Acetonitrile	3.7	U	10	3.7	ug/L			03/20/18 13:15	1
Acrolein	2.8	U	10	2.8	ug/L			03/20/18 13:15	1
Acrylonitrile	0.73	U	10	0.73	ug/L			03/20/18 13:15	1
Allyl chloride	0.10	U	2.0	0.10	ug/L			03/20/18 13:15	1
Benzene	0.10	U	1.0	0.10	ug/L			03/20/18 13:15	1
Bromodichloromethane	0.14	U	1.0	0.14	ug/L			03/20/18 13:15	1
Bromoform	0.17	U	1.0	0.17	ug/L			03/20/18 13:15	1
Bromomethane	0.25	U	2.0	0.25	ug/L			03/20/18 13:15	1
Carbon disulfide	0.10	U	1.0	0.10	ug/L			03/20/18 13:15	1
Carbon tetrachloride	0.18	U	1.0	0.18	ug/L			03/20/18 13:15	1
Chlorobenzene	0.11	U	1.0	0.11	ug/L			03/20/18 13:15	1
Chloroethane	0.16	U	2.0	0.16	ug/L			03/20/18 13:15	1
Chloroform	0.32 J		1.0	0.10	ug/L			03/20/18 13:15	1
Chloromethane	0.10	U	2.0	0.10	ug/L			03/20/18 13:15	1
Chloroprene	0.16	U	1.0	0.16	ug/L			03/20/18 13:15	1
cis-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			03/20/18 13:15	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			03/20/18 13:15	1
Dibromochloromethane	0.14	U	1.0	0.14	ug/L			03/20/18 13:15	1
Dibromomethane	0.21	U	1.0	0.21	ug/L			03/20/18 13:15	1
Dichlorodifluoromethane	0.14	U	2.0	0.14	ug/L			03/20/18 13:15	1
Ethyl Cyanide	1.4	U	10	1.4	ug/L			03/20/18 13:15	1
Ethyl methacrylate	0.17	U	1.0	0.17	ug/L			03/20/18 13:15	1
Ethylbenzene	0.12	U	1.0	0.12	ug/L			03/20/18 13:15	1
Iodomethane	0.10	U	2.0	0.10	ug/L			03/20/18 13:15	1
Isobutyl alcohol	8.3	U	80	8.3	ug/L			03/20/18 13:15	1
Methacrylonitrile	1.2	U	10	1.2	ug/L			03/20/18 13:15	1
Methyl methacrylate	0.27	U	2.0	0.27	ug/L			03/20/18 13:15	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			03/20/18 13:15	1
Styrene	0.13	U	1.0	0.13	ug/L			03/20/18 13:15	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			03/20/18 13:15	1
Toluene	0.14	U	1.0	0.14	ug/L			03/20/18 13:15	1
trans-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			03/20/18 13:15	1
trans-1,3-Dichloropropene	0.10	U	1.0	0.10	ug/L			03/20/18 13:15	1
trans-1,4-Dichloro-2-butene	0.29	U	2.0	0.29	ug/L			03/20/18 13:15	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			03/20/18 13:15	1
Trichloromonofluoromethane	0.11	U	1.0	0.11	ug/L			03/20/18 13:15	1
Vinyl acetate	0.18	U	2.0	0.18	ug/L			03/20/18 13:15	1
Vinyl chloride	0.19	U	2.0	0.19	ug/L			03/20/18 13:15	1
Xylenes, Total	0.27	U	3.0	0.27	ug/L			03/20/18 13:15	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					03/20/18 13:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surrogate)	88		75 - 129					03/20/18 13:15	1

Client: CH2M Hill Plateau Remediation Company
Project/Site: A18-003 / S18-003 / W18-003TestAmerica Job ID: 160-27368-1
SDG: SL2827**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)****Client Sample ID: B3HK87****Date Collected: 03/15/18 08:06****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-11****Matrix: Water**

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		81 - 130
Dibromofluoromethane (Surr)	90		81 - 124
Toluene-d8 (Surr)	103		87 - 128

Prepared	Analyzed	Dil Fac
	03/20/18 13:15	1
	03/20/18 13:15	1
	03/20/18 13:15	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)**Client Sample ID: B3HK75****Date Collected: 03/15/18 12:32****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-10****Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
1,2,4-Trichlorobenzene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
1,2-Dichlorobenzene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
1,3-Dichlorobenzene	0.96	U T o	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
1,4-Dichlorobenzene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
1,4-Dioxane	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
1,4-Naphthoquinone	0.96	U	48	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
1-Naphthylamine	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
2,3,4,6-Tetrachlorophenol	0.96	U	48	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
2,4,5-Trichlorophenol	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
2,4,6-Trichlorophenol	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
2,4-Dichlorophenol	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
2,4-Dimethylphenol	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
2,4-Dinitrophenol	1.9	U	48	1.9	ug/L		03/19/18 12:10	03/27/18 14:03	1
2,4-Dinitrotoluene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
2,6-Dichlorophenol	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
2,6-Dinitrotoluene	2.1	U T	9.6	2.1	ug/L		03/19/18 12:10	03/27/18 14:03	1
2-Acetylaminofluorene	0.96	U	96	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
2-Chloronaphthalene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
2-Chlorophenol	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
2-Methylnaphthalene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
2-Methylphenol	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
2-Naphthylamine	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
2-Nitroaniline	1.1	U	9.6	1.1	ug/L		03/19/18 12:10	03/27/18 14:03	1
2-Nitrophenol	1.5	U T	9.6	1.5	ug/L		03/19/18 12:10	03/27/18 14:03	1
2-Picoline	1.9	U	19	1.9	ug/L		03/19/18 12:10	03/27/18 14:03	1
3 & 4 Methylphenol	1.9	U	19	1.9	ug/L		03/19/18 12:10	03/27/18 14:03	1
3,3'-Dichlorobenzidine	1.2	U	48	1.2	ug/L		03/19/18 12:10	03/27/18 14:03	1
3,3'-Dimethylbenzidine	2.5	U	48	2.5	ug/L		03/19/18 12:10	03/27/18 14:03	1
3-Methylcholanthrene	0.96	U	19	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
3-Nitroaniline	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
4,6-Dinitro-2-methylphenol	1.2	U T	9.6	1.2	ug/L		03/19/18 12:10	03/27/18 14:03	1
4-Aminobiphenyl	1.0	U	48	1.0	ug/L		03/19/18 12:10	03/27/18 14:03	1
4-Bromophenyl phenyl ether	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
4-Chloro-3-methylphenol	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
4-Chloroaniline	1.9	U	9.6	1.9	ug/L		03/19/18 12:10	03/27/18 14:03	1
4-Chlorophenyl phenyl ether	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
4-Nitroaniline	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
4-Nitrophenol	1.9	U	9.6	1.9	ug/L		03/19/18 12:10	03/27/18 14:03	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**Client Sample ID: B3HK75****Date Collected: 03/15/18 12:32****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-10**
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroquinoline-1-oxide	4.8	U	96	4.8	ug/L		03/19/18 12:10	03/27/18 14:03	1
5-Nitro-o-toluidine	0.96	U	19	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
7,12-Dimethylbenz(a)anthracene	0.96	U	19	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Acenaphthene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Acenaphthylene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Acetophenone	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
alpha,alpha-Dimethyl phenethylamine	21	U	48	21	ug/L		03/19/18 12:10	03/27/18 14:03	1
Aniline	1.2	U	9.6	1.2	ug/L		03/19/18 12:10	03/27/18 14:03	1
Anthracene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Aramite, Total	4.8	U	19	4.8	ug/L		03/19/18 12:10	03/27/18 14:03	1
Benzo[a]anthracene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Benzo[a]pyrene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Benzo[b]fluoranthene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Benzo[g,h,i]perylene	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Benzo[k]fluoranthene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Benzyl alcohol	2.9	U	9.6	2.9	ug/L		03/19/18 12:10	03/27/18 14:03	1
bis(2 chloro-1-methylethyl) ether	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Bis(2-chloroethoxy)methane	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Bis(2-chloroethyl)ether	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Bis(2-ethylhexyl) phthalate	1.8	U T	9.6	1.8	ug/L		03/19/18 12:10	03/27/18 14:03	1
Butyl benzyl phthalate	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Carbazole	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Chlorobenzilate	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Chrysene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Diallate	1.9	U	19	1.9	ug/L		03/19/18 12:10	03/27/18 14:03	1
Dibenz(a,h)anthracene	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Dibenzofuran	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Diethyl phthalate	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Dimethoate	0.96	U	19	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Dimethyl phthalate	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Di-n-butyl phthalate	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Dinitrobenzene, m-	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Di-n-octyl phthalate	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Dinoseb	1.9	U	19	1.9	ug/L		03/19/18 12:10	03/27/18 14:03	1
Diphenylamine + N-Nitrosodiphenylamine	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Disulfoton	0.96	U	48	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Ethyl methanesulfonate	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Famphur	1.6	U	96	1.6	ug/L		03/19/18 12:10	03/27/18 14:03	1
Fluoranthene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Fluorene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Hexachlorobenzene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Hexachlorobutadiene	0.96	U T o	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Hexachlorocyclopentadiene	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Hexachloroethane	0.96	U T o	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Hexachlorophene	9.6	U	240	9.6	ug/L		03/19/18 12:10	03/27/18 14:03	1
Hexachloropropene	0.96	U	96	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Indeno[1,2,3-cd]pyrene	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Isodrin	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Isophorone	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1

04/16/2018
Client Sample Results

REV.0

Client: CH2M Hill Plateau Remediation Company
Project/Site: A18-003 / S18-003 / W18-003

TestAmerica Job ID: 160-27368-1
SDG: SL2827

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B3HK75

Date Collected: 03/15/18 12:32

Date Received: 03/16/18 09:00

Lab Sample ID: 160-27368-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iisosafrole	4.8	U	19	4.8	ug/L		03/19/18 12:10	03/27/18 14:03	1
Kepone	19	U	96	19	ug/L		03/19/18 12:10	03/27/18 14:03	1
Methapyrilene	1.2	U	48	1.2	ug/L		03/19/18 12:10	03/27/18 14:03	1
Methyl methanesulfonate	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Methyl parathion	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Naphthalene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Nitrobenzene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
N-Nitrosodiethylamine	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
N-Nitrosodimethylamine	1.9	U	9.6	1.9	ug/L		03/19/18 12:10	03/27/18 14:03	1
N-Nitrosodi-n-butylamine	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
N-Nitrosodi-n-propylamine	1.4	U T	9.6	1.4	ug/L		03/19/18 12:10	03/27/18 14:03	1
N-Nitrosomethylethylamine	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
N-Nitrosomorpholine	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
N-Nitrosopiperidine	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
N-Nitrosopyrrolidine	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
o,o',o"-Triethylphosphorothioate	1.1	U	48	1.1	ug/L		03/19/18 12:10	03/27/18 14:03	1
O,O-Diethyl O-2-pyrazinyl phosphorothioate	0.96	U	48	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
o-Toluidine	0.96	U	19	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Parathion	0.96	U	48	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
p-Dimethylamino azobenzene	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Pentachlorobenzene	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Pentachloroethane	0.96	U	48	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Pentachloronitrobenzene	0.96	U	48	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Pentachlorophenol	1.2	U T	48	1.2	ug/L		03/19/18 12:10	03/27/18 14:03	1
Phenacetin	0.96	U	19	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Phenanthrene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Phenol	1.9	U	9.6	1.9	ug/L		03/19/18 12:10	03/27/18 14:03	1
Phorate	1.9	U	48	1.9	ug/L		03/19/18 12:10	03/27/18 14:03	1
p-Phenylenediamine	0.96	U	96	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Pronamide	0.96	U	19	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Pyrene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Pyridine	1.9	U	19	1.9	ug/L		03/19/18 12:10	03/27/18 14:03	1
Safrole	0.96	U	19	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
sym-Trinitrobenzene	0.96	U	48	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Tetraethyl dithiopyrophosphate (sulfotep)	0.96	U	48	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Tributyl phosphate	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:03	1
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Methylene Chloride	9.5	N J	ug/L		2.90	75-09-2	03/19/18 12:10	03/27/18 14:03	1
1-Eicosanol	12	N J	ug/L		12.42	629-96-9	03/19/18 12:10	03/27/18 14:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	82		37 - 120				03/19/18 12:10	03/27/18 14:03	1
2-Fluorobiphenyl (Surr)	77		43 - 108				03/19/18 12:10	03/27/18 14:03	1
2-Fluorophenol (Surr)	40		15 - 59				03/19/18 12:10	03/27/18 14:03	1
Nitrobenzene-d5 (Surr)	78		50 - 101				03/19/18 12:10	03/27/18 14:03	1
Phenol-d5 (Surr)	25		10 - 50				03/19/18 12:10	03/27/18 14:03	1
Terphenyl-d14 (Surr)	62		21 - 97				03/19/18 12:10	03/27/18 14:03	1

TestAmerica St. Louis

Method: 8270D - Semivolatile Organic Compounds (GC/MS)**Client Sample ID: B3HK87****Date Collected: 03/15/18 08:06****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-11****Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
1,2,4-Trichlorobenzene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
1,2-Dichlorobenzene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
1,3-Dichlorobenzene	0.96	U T o	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
1,4-Dichlorobenzene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
1,4-Dioxane	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
1,4-Naphthoquinone	0.96	U	48	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
1-Naphthylamine	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
2,3,4,6-Tetrachlorophenol	0.96	U	48	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
2,4,5-Trichlorophenol	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
2,4,6-Trichlorophenol	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
2,4-Dichlorophenol	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
2,4-Dimethylphenol	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
2,4-Dinitrophenol	1.9	U	48	1.9	ug/L		03/19/18 12:10	03/27/18 14:30	1
2,4-Dinitrotoluene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
2,6-Dichlorophenol	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
2,6-Dinitrotoluene	2.1	U T	9.6	2.1	ug/L		03/19/18 12:10	03/27/18 14:30	1
2-Acetylaminofluorene	0.96	U	96	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
2-Chloronaphthalene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
2-Chlorophenol	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
2-Methylnaphthalene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
2-Methylphenol	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
2-Naphthylamine	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
2-Nitroaniline	1.1	U	9.6	1.1	ug/L		03/19/18 12:10	03/27/18 14:30	1
2-Nitrophenol	1.5	U T	9.6	1.5	ug/L		03/19/18 12:10	03/27/18 14:30	1
2-Picoline	1.9	U	19	1.9	ug/L		03/19/18 12:10	03/27/18 14:30	1
3 & 4 Methylphenol	1.9	U	19	1.9	ug/L		03/19/18 12:10	03/27/18 14:30	1
3,3'-Dichlorobenzidine	1.2	U	48	1.2	ug/L		03/19/18 12:10	03/27/18 14:30	1
3,3'-Dimethylbenzidine	2.5	U	48	2.5	ug/L		03/19/18 12:10	03/27/18 14:30	1
3-Methylcholanthrene	0.96	U	19	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
3-Nitroaniline	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
4,6-Dinitro-2-methylphenol	1.2	U T	9.6	1.2	ug/L		03/19/18 12:10	03/27/18 14:30	1
4-Aminobiphenyl	1.0	U	48	1.0	ug/L		03/19/18 12:10	03/27/18 14:30	1
4-Bromophenyl phenyl ether	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
4-Chloro-3-methylphenol	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
4-Chloroaniline	1.9	U	9.6	1.9	ug/L		03/19/18 12:10	03/27/18 14:30	1
4-Chlorophenyl phenyl ether	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
4-Nitroaniline	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
4-Nitrophenol	1.9	U	9.6	1.9	ug/L		03/19/18 12:10	03/27/18 14:30	1
4-Nitroquinoline-1-oxide	4.8	U	96	4.8	ug/L		03/19/18 12:10	03/27/18 14:30	1
5-Nitro-o-toluidine	0.96	U	19	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
7,12-Dimethylbenz(a)anthracene	0.96	U	19	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Acenaphthene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Acenaphthylene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Acetophenone	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
alpha,alpha-Dimethyl phenethylamine	21	U	48	21	ug/L		03/19/18 12:10	03/27/18 14:30	1
Aniline	1.2	U	9.6	1.2	ug/L		03/19/18 12:10	03/27/18 14:30	1
Anthracene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Aramite, Total	4.8	U	19	4.8	ug/L		03/19/18 12:10	03/27/18 14:30	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**Client Sample ID: B3HK87****Date Collected: 03/15/18 08:06****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-11****Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Benzo[a]pyrene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Benzo[b]fluoranthene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Benzo[g,h,i]perylene	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Benzo[k]fluoranthene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Benzyl alcohol	2.9	U	9.6	2.9	ug/L		03/19/18 12:10	03/27/18 14:30	1
bis(2 chloro-1-methylethyl) ether	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Bis(2-chloroethoxy)methane	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Bis(2-chloroethyl)ether	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Bis(2-ethylhexyl) phthalate	1.8	U T	9.6	1.8	ug/L		03/19/18 12:10	03/27/18 14:30	1
Butyl benzyl phthalate	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Carbazole	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Chlorobenzilate	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Chrysene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Diallate	1.9	U	19	1.9	ug/L		03/19/18 12:10	03/27/18 14:30	1
Dibenz(a,h)anthracene	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Dibenzofuran	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Diethyl phthalate	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Dimethoate	0.96	U	19	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Dimethyl phthalate	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Di-n-butyl phthalate	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Dinitrobenzene, m-	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Di-n-octyl phthalate	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Dinoseb	1.9	U	19	1.9	ug/L		03/19/18 12:10	03/27/18 14:30	1
Diphenylamine + N-Nitrosodiphenylamine	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Disulfoton	0.96	U	48	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Ethyl methanesulfonate	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Famphur	1.6	U	96	1.6	ug/L		03/19/18 12:10	03/27/18 14:30	1
Fluoranthene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Fluorene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Hexachlorobenzene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Hexachlorobutadiene	0.96	U T o	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Hexachlorocyclopentadiene	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Hexachloroethane	0.96	U T o	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Hexachlorophene	9.6	U	240	9.6	ug/L		03/19/18 12:10	03/27/18 14:30	1
Hexachloropropene	0.96	U	96	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Indeno[1,2,3-cd]pyrene	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Isodrin	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Isophorone	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Isosafrole	4.8	U	19	4.8	ug/L		03/19/18 12:10	03/27/18 14:30	1
Kepone	19	U	96	19	ug/L		03/19/18 12:10	03/27/18 14:30	1
Methapyrilene	1.2	U	48	1.2	ug/L		03/19/18 12:10	03/27/18 14:30	1
Methyl methanesulfonate	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Methyl parathion	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Naphthalene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Nitrobenzene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
N-Nitrosodiethylamine	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
N-Nitrosodimethylamine	1.9	U	9.6	1.9	ug/L		03/19/18 12:10	03/27/18 14:30	1
N-Nitrosodi-n-butylamine	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1

Client: CH2M Hill Plateau Remediation Company
Project/Site: A18-003 / S18-003 / W18-003TestAmerica Job ID: 160-27368-1
SDG: SL2827**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)****Client Sample ID: B3HK87****Date Collected: 03/15/18 08:06****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-11****Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	1.4	U T	9.6	1.4	ug/L		03/19/18 12:10	03/27/18 14:30	1
N-Nitrosomethylalkylamine	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
N-Nitrosomorpholine	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
N-Nitrosopiperidine	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
N-Nitrosopyrrolidine	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
o,o',o"-Triethylphosphorothioate	1.1	U	48	1.1	ug/L		03/19/18 12:10	03/27/18 14:30	1
O,O-Diethyl O-2-pyrazinyl phosphorothioate	0.96	U	48	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
o-Toluidine	0.96	U	19	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Parathion	0.96	U	48	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
p-Dimethylamino azobenzene	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Pentachlorobenzene	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Pentachloroethane	0.96	U	48	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Pentachloronitrobenzene	0.96	U	48	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Pentachlorophenol	1.2	U T	48	1.2	ug/L		03/19/18 12:10	03/27/18 14:30	1
Phenacetin	0.96	U	19	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Phenanthrene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Phenol	1.9	U	9.6	1.9	ug/L		03/19/18 12:10	03/27/18 14:30	1
Phorate	1.9	U	48	1.9	ug/L		03/19/18 12:10	03/27/18 14:30	1
p-Phenylenediamine	0.96	U	96	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Pronamide	0.96	U	19	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Pyrene	0.96	U T	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Pyridine	1.9	U	19	1.9	ug/L		03/19/18 12:10	03/27/18 14:30	1
Safrole	0.96	U	19	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
sym-Trinitrobenzene	0.96	U	48	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Tetraethyl dithiopyrophosphate (sulfotep)	0.96	U	48	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Tributyl phosphate	0.96	U	9.6	0.96	ug/L		03/19/18 12:10	03/27/18 14:30	1
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	8.3	N	ug/L		12.42		03/19/18 12:10	03/27/18 14:30	1

Surrogate

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	80		37 - 120	03/19/18 12:10	03/27/18 14:30	1
2-Fluorobiphenyl (Surr)	75		43 - 108	03/19/18 12:10	03/27/18 14:30	1
2-Fluorophenol (Surr)	40		15 - 59	03/19/18 12:10	03/27/18 14:30	1
Nitrobenzene-d5 (Surr)	78		50 - 101	03/19/18 12:10	03/27/18 14:30	1
Phenol-d5 (Surr)	25		10 - 50	03/19/18 12:10	03/27/18 14:30	1
Terphenyl-d14 (Surr)	60		21 - 97	03/19/18 12:10	03/27/18 14:30	1

Client Sample ID: B3HL41**Date Collected: 03/15/18 09:01****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-13****Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
1,2,4-Trichlorobenzene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
1,2-Dichlorobenzene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
1,3-Dichlorobenzene	0.97	U T o	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
1,4-Dichlorobenzene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
1,4-Dioxane	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
1,4-Naphthoquinone	0.97	U	49	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1

TestAmerica St. Louis

Client: CH2M Hill Plateau Remediation Company
Project/Site: A18-003 / S18-003 / W18-003TestAmerica Job ID: 160-27368-1
SDG: SL2827**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)****Client Sample ID: B3HL41****Date Collected: 03/15/18 09:01****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-13****Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Naphthylamine	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
2,3,4,6-Tetrachlorophenol	0.97	U	49	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
2,4,5-Trichlorophenol	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
2,4,6-Trichlorophenol	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
2,4-Dichlorophenol	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
2,4-Dimethylphenol	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
2,4-Dinitrophenol	1.9	U	49	1.9	ug/L		03/19/18 12:10	03/27/18 14:57	1
2,4-Dinitrotoluene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
2,6-Dichlorophenol	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
2,6-Dinitrotoluene	2.1	U T	9.7	2.1	ug/L		03/19/18 12:10	03/27/18 14:57	1
2-Acetylaminofluorene	0.97	U	97	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
2-Chloronaphthalene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
2-Chlorophenol	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
2-Methylnaphthalene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
2-Methylphenol	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
2-Naphthylamine	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
2-Nitroaniline	1.1	U	9.7	1.1	ug/L		03/19/18 12:10	03/27/18 14:57	1
2-Nitrophenol	1.5	U T	9.7	1.5	ug/L		03/19/18 12:10	03/27/18 14:57	1
2-Picoline	1.9	U	19	1.9	ug/L		03/19/18 12:10	03/27/18 14:57	1
3 & 4 Methylphenol	1.9	U	19	1.9	ug/L		03/19/18 12:10	03/27/18 14:57	1
3,3'-Dichlorobenzidine	1.3	U	49	1.3	ug/L		03/19/18 12:10	03/27/18 14:57	1
3,3'-Dimethylbenzidine	2.5	U	49	2.5	ug/L		03/19/18 12:10	03/27/18 14:57	1
3-Methylcholanthrene	0.97	U	19	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
3-Nitroaniline	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
4,6-Dinitro-2-methylphenol	1.2	U T	9.7	1.2	ug/L		03/19/18 12:10	03/27/18 14:57	1
4-Aminobiphenyl	1.0	U	49	1.0	ug/L		03/19/18 12:10	03/27/18 14:57	1
4-Bromophenyl phenyl ether	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
4-Chloro-3-methylphenol	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
4-Chloroaniline	1.9	U	9.7	1.9	ug/L		03/19/18 12:10	03/27/18 14:57	1
4-Chlorophenyl phenyl ether	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
4-Nitroaniline	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
4-Nitrophenol	1.9	U	9.7	1.9	ug/L		03/19/18 12:10	03/27/18 14:57	1
4-Nitroquinoline-1-oxide	4.9	U	97	4.9	ug/L		03/19/18 12:10	03/27/18 14:57	1
5-Nitro-o-toluidine	0.97	U	19	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
7,12-Dimethylbenz(a)anthracene	0.97	U	19	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Acenaphthene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Acenaphthylene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Acetophenone	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
alpha,alpha-Dimethyl phenethylamine	21	U	49	21	ug/L		03/19/18 12:10	03/27/18 14:57	1
Aniline	1.2	U	9.7	1.2	ug/L		03/19/18 12:10	03/27/18 14:57	1
Anthracene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Aramite, Total	4.9	U	19	4.9	ug/L		03/19/18 12:10	03/27/18 14:57	1
Benzo[a]anthracene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Benzo[a]pyrene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Benzo[b]fluoranthene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Benzo[g,h,i]perylene	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Benzo[k]fluoranthene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Benzyl alcohol	2.9	U	9.7	2.9	ug/L		03/19/18 12:10	03/27/18 14:57	1
bis(2 chloro-1-methylethyl) ether	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**Client Sample ID: B3HL41****Date Collected: 03/15/18 09:01****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-13**
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Bis(2-chloroethyl)ether	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Bis(2-ethylhexyl) phthalate	1.8	U T	9.7	1.8	ug/L		03/19/18 12:10	03/27/18 14:57	1
Butyl benzyl phthalate	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Carbazole	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Chlorobenzilate	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Chrysene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Diallate	1.9	U	19	1.9	ug/L		03/19/18 12:10	03/27/18 14:57	1
Dibenz(a,h)anthracene	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Dibenzofuran	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Diethyl phthalate	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Dimethoate	0.97	U	19	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Dimethyl phthalate	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Di-n-butyl phthalate	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Dinitrobenzene, m-	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Di-n-octyl phthalate	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Dinoseb	1.9	U	19	1.9	ug/L		03/19/18 12:10	03/27/18 14:57	1
Diphenylamine + N-Nitrosodiphenylamine	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Disulfoton	0.97	U	49	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Ethyl methanesulfonate	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Famphur	1.7	U	97	1.7	ug/L		03/19/18 12:10	03/27/18 14:57	1
Fluoranthene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Fluorene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Hexachlorobenzene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Hexachlorobutadiene	0.97	U T o	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Hexachlorocyclopentadiene	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Hexachloroethane	0.97	U T o	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Hexachlorophene	9.7	U	240	9.7	ug/L		03/19/18 12:10	03/27/18 14:57	1
Hexachloropropene	0.97	U	97	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Indeno[1,2,3-cd]pyrene	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Isodrin	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Isophorone	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Isosafrole	4.9	U	19	4.9	ug/L		03/19/18 12:10	03/27/18 14:57	1
Kepone	19	U	97	19	ug/L		03/19/18 12:10	03/27/18 14:57	1
Methapyrilene	1.2	U	49	1.2	ug/L		03/19/18 12:10	03/27/18 14:57	1
Methyl methanesulfonate	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Methyl parathion	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Naphthalene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
Nitrobenzene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
N-Nitrosodiethylamine	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
N-Nitrosodimethylamine	1.9	U	9.7	1.9	ug/L		03/19/18 12:10	03/27/18 14:57	1
N-Nitrosodi-n-butylamine	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
N-Nitrosodi-n-propylamine	1.5	U T	9.7	1.5	ug/L		03/19/18 12:10	03/27/18 14:57	1
N-Nitrosomethylethylamine	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
N-Nitrosomorpholine	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
N-Nitrosopiperidine	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
N-Nitrosopyrrolidine	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1
o,o',o"-Triethylphosphorothioate	1.1	U	49	1.1	ug/L		03/19/18 12:10	03/27/18 14:57	1

04/16/2018
Client Sample Results

REV.0

Client: CH2M Hill Plateau Remediation Company
Project/Site: A18-003 / S18-003 / W18-003

TestAmerica Job ID: 160-27368-1
SDG: SL2827

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B3HL41							Lab Sample ID: 160-27368-13			
Date Collected: 03/15/18 09:01							Matrix: Water			
Date Received: 03/16/18 09:00										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
O,O-Diethyl O-2-pyrazinyl phosphorothioate	0.97	U	49	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1	
o-Toluidine	0.97	U	19	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1	
Parathion	0.97	U	49	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1	
p-Dimethylamino azobenzene	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1	
Pentachlorobenzene	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1	
Pentachloroethane	0.97	U	49	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1	
Pentachloronitrobenzene	0.97	U	49	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1	
Pentachlorophenol	1.2	U T	49	1.2	ug/L		03/19/18 12:10	03/27/18 14:57	1	
Phenacetin	0.97	U	19	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1	
Phenanthrene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1	
Phenol	1.9	U	9.7	1.9	ug/L		03/19/18 12:10	03/27/18 14:57	1	
Phorate	1.9	U	49	1.9	ug/L		03/19/18 12:10	03/27/18 14:57	1	
p-Phenylenediamine	0.97	U	97	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1	
Pronamide	0.97	U	19	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1	
Pyrene	0.97	U T	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1	
Pyridine	1.9	U	19	1.9	ug/L		03/19/18 12:10	03/27/18 14:57	1	
Safrole	0.97	U	19	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1	
sym-Trinitrobenzene	0.97	U	49	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1	
Tetraethyl dithiopyrophosphate (sulfotep)	0.97	U	49	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1	
Tributyl phosphate	0.97	U	9.7	0.97	ug/L		03/19/18 12:10	03/27/18 14:57	1	
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac	
Unknown	5.6	N	ug/L		12.43		03/19/18 12:10	03/27/18 14:57	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
2,4,6-Tribromophenol (Surr)	84		37 - 120				03/19/18 12:10	03/27/18 14:57	1	
2-Fluorobiphenyl (Surr)	78		43 - 108				03/19/18 12:10	03/27/18 14:57	1	
2-Fluorophenol (Surr)	42		15 - 59				03/19/18 12:10	03/27/18 14:57	1	
Nitrobenzene-d5 (Surr)	79		50 - 101				03/19/18 12:10	03/27/18 14:57	1	
Phenol-d5 (Surr)	25		10 - 50				03/19/18 12:10	03/27/18 14:57	1	
Terphenyl-d14 (Surr)	86		21 - 97				03/19/18 12:10	03/27/18 14:57	1	

Method: 8081B - Organochlorine Pesticides (GC)

Client Sample ID: B3HL47							Lab Sample ID: 160-27368-15			
Date Collected: 03/15/18 08:06							Matrix: Water			
Date Received: 03/16/18 09:00										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
4,4'-DDD	0.013	U	0.048	0.013	ug/L		03/20/18 15:20	03/22/18 14:58	1	
4,4'-DDE	0.013	U	0.048	0.013	ug/L		03/20/18 15:20	03/22/18 14:58	1	
4,4'-DDT	0.022	U N	0.048	0.022	ug/L		03/20/18 15:20	03/22/18 14:58	1	
Aldrin	0.0095	U	0.048	0.0095	ug/L		03/20/18 15:20	03/22/18 14:58	1	
alpha-BHC	0.0095	U	0.048	0.0095	ug/L		03/20/18 15:20	03/22/18 14:58	1	
cis-Chlordane	0.014	U	0.048	0.014	ug/L		03/20/18 15:20	03/22/18 14:58	1	
beta-BHC	0.012	U	0.048	0.012	ug/L		03/20/18 15:20	03/22/18 14:58	1	
delta-BHC	0.010	U	0.048	0.010	ug/L		03/20/18 15:20	03/22/18 14:58	1	
Dieldrin	0.0095	U	0.048	0.0095	ug/L		03/20/18 15:20	03/22/18 14:58	1	
Endosulfan I	0.018	U	0.048	0.018	ug/L		03/20/18 15:20	03/22/18 14:58	1	
Endosulfan II	0.0095	U	0.048	0.0095	ug/L		03/20/18 15:20	03/22/18 14:58	1	

TestAmerica St. Louis

04/16/2018
Client Sample Results

REV.0

Client: CH2M Hill Plateau Remediation Company
Project/Site: A18-003 / S18-003 / W18-003

TestAmerica Job ID: 160-27368-1
SDG: SL2827

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: B3HL47

Date Collected: 03/15/18 08:06

Date Received: 03/16/18 09:00

Lab Sample ID: 160-27368-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan sulfate	0.0095	U	0.048	0.0095	ug/L		03/20/18 15:20	03/22/18 14:58	1
Endrin	0.017	U	0.048	0.017	ug/L		03/20/18 15:20	03/22/18 14:58	1
Endrin aldehyde	0.0095	U	0.048	0.0095	ug/L		03/20/18 15:20	03/22/18 14:58	1
Endrin ketone	0.010	U	0.048	0.010	ug/L		03/20/18 15:20	03/22/18 14:58	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	ug/L		03/20/18 15:20	03/22/18 14:58	1
Heptachlor	0.012	U	0.048	0.012	ug/L		03/20/18 15:20	03/22/18 14:58	1
Heptachlor epoxide	0.016	U	0.048	0.016	ug/L		03/20/18 15:20	03/22/18 14:58	1
Methoxychlor	0.012	U	0.48	0.012	ug/L		03/20/18 15:20	03/22/18 14:58	1
Technical Chlordane	0.095	U	0.48	0.095	ug/L		03/20/18 15:20	03/22/18 14:58	1
Toxaphene	0.26	U	1.9	0.26	ug/L		03/20/18 15:20	03/22/18 14:58	1
trans-Chlordane	0.0095	U	0.048	0.0095	ug/L		03/20/18 15:20	03/22/18 14:58	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surrogate)	66			26 - 127			03/20/18 15:20	03/22/18 14:58	1
Tetrachloro-m-xylene	71			53 - 116			03/20/18 15:20	03/22/18 14:58	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: B3HL47

Date Collected: 03/15/18 08:06

Date Received: 03/16/18 09:00

Lab Sample ID: 160-27368-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.34	U	0.97	0.34	ug/L		03/21/18 19:35	03/22/18 14:46	1
Aroclor 1221	0.34	U	0.97	0.34	ug/L		03/21/18 19:35	03/22/18 14:46	1
Aroclor 1232	0.34	U	0.97	0.34	ug/L		03/21/18 19:35	03/22/18 14:46	1
Aroclor 1242	0.34	U	0.97	0.34	ug/L		03/21/18 19:35	03/22/18 14:46	1
Aroclor 1248	0.34	U	0.97	0.34	ug/L		03/21/18 19:35	03/22/18 14:46	1
Aroclor 1254	0.28	U	0.97	0.28	ug/L		03/21/18 19:35	03/22/18 14:46	1
Aroclor 1260	0.28	U	0.97	0.28	ug/L		03/21/18 19:35	03/22/18 14:46	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surrogate)	85			32 - 141			03/21/18 19:35	03/22/18 14:46	1

Method: 8151A - Herbicides (GC)

Client Sample ID: B3HL47

Date Collected: 03/15/18 08:06

Date Received: 03/16/18 09:00

Lab Sample ID: 160-27368-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.26	U	0.95	0.26	ug/L		03/21/18 18:35	03/27/18 12:16	1
2,4-D	4.0	U	7.6	4.0	ug/L		03/21/18 18:35	03/27/18 12:16	1
2,4-DB	3.6	U	7.6	3.6	ug/L		03/21/18 18:35	03/27/18 12:16	1
Dalapon	9.3	U	11	9.3	ug/L		03/21/18 18:35	03/27/18 12:16	1
Dicamba	0.32	U	1.9	0.32	ug/L		03/21/18 18:35	03/27/18 12:16	1
Dichlorprop	1.3	U	4.8	1.3	ug/L		03/21/18 18:35	03/27/18 12:16	1
Dinoseb	0.70	U N	1.9	0.70	ug/L		03/21/18 18:35	03/27/18 12:16	1
MCPA	180	U	380	180	ug/L		03/21/18 18:35	03/27/18 12:16	1
MCPP	160	U	380	160	ug/L		03/21/18 18:35	03/27/18 12:16	1
Silvex (2,4,5-TP)	0.18	U	0.95	0.18	ug/L		03/21/18 18:35	03/27/18 12:16	1

TestAmerica St. Louis

04/16/2018
Client Sample Results

REV.0

Client: CH2M Hill Plateau Remediation Company
Project/Site: A18-003 / S18-003 / W18-003

TestAmerica Job ID: 160-27368-1
SDG: SL2827

Method: 8151A - Herbicides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	128		60 - 128	03/21/18 18:35	03/27/18 12:16	1

Method: 6010C - Metals (ICP)

Client Sample ID: B3HL07

Date Collected: 03/14/18 12:53

Date Received: 03/16/18 09:00

Lab Sample ID: 160-27368-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	35800		1000	300	ug/L		03/23/18 09:59	03/26/18 15:31	1
Iron	30.0	U	100	30.0	ug/L		03/23/18 09:59	03/26/18 15:31	1
Magnesium	12700		1000	300	ug/L		03/23/18 09:59	03/26/18 15:31	1
Potassium	5330		5000	1500	ug/L		03/23/18 09:59	03/26/18 15:31	1
Sodium	28800		1000	300	ug/L		03/23/18 09:59	03/26/18 15:31	1
Vanadium	20.8	B C	50.0	4.0	ug/L		03/23/18 09:59	03/26/18 15:31	1
Boron	25.0	U	100	25.0	ug/L		03/23/18 09:59	03/26/18 15:31	1

Client Sample ID: B3HL41

Date Collected: 03/15/18 09:01

Date Received: 03/16/18 09:00

Lab Sample ID: 160-27368-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	73700		1000	300	ug/L		03/23/18 09:59	03/26/18 15:36	1
Iron	30.0	U	100	30.0	ug/L		03/23/18 09:59	03/26/18 15:36	1
Magnesium	21900		1000	300	ug/L		03/23/18 09:59	03/26/18 15:36	1
Potassium	8270		5000	1500	ug/L		03/23/18 09:59	03/26/18 15:36	1
Sodium	19900		1000	300	ug/L		03/23/18 09:59	03/26/18 15:36	1
Vanadium	22.7	B C	50.0	4.0	ug/L		03/23/18 09:59	03/26/18 15:36	1
Boron	25.0	U	100	25.0	ug/L		03/23/18 09:59	03/26/18 15:36	1

Method: 6010C - Metals (ICP) - Dissolved

Client Sample ID: B3HHN6

Date Collected: 03/14/18 12:53

Date Received: 03/16/18 09:00

Lab Sample ID: 160-27368-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	25.0	U	100	25.0	ug/L		03/23/18 09:59	03/26/18 15:14	1
Calcium	37100		1000	300	ug/L		03/23/18 09:59	03/26/18 15:14	1
Iron	30.0	U	100	30.0	ug/L		03/23/18 09:59	03/26/18 15:14	1
Magnesium	13200		1000	300	ug/L		03/23/18 09:59	03/26/18 15:14	1
Potassium	5320		5000	1500	ug/L		03/23/18 09:59	03/26/18 15:14	1
Sodium	28500		1000	300	ug/L		03/23/18 09:59	03/26/18 15:14	1
Vanadium	17.3	B C	50.0	4.0	ug/L		03/23/18 09:59	03/26/18 15:14	1

Client Sample ID: B3HJR1

Date Collected: 03/15/18 09:01

Date Received: 03/16/18 09:00

Lab Sample ID: 160-27368-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	25.0	U	100	25.0	ug/L		03/23/18 10:00	03/26/18 15:41	1
Calcium	74700		1000	300	ug/L		03/23/18 10:00	03/26/18 15:41	1
Iron	30.0	U	100	30.0	ug/L		03/23/18 10:00	03/26/18 15:41	1
Magnesium	22100		1000	300	ug/L		03/23/18 10:00	03/26/18 15:41	1
Potassium	8260		5000	1500	ug/L		03/23/18 10:00	03/26/18 15:41	1
Sodium	20400		1000	300	ug/L		03/23/18 10:00	03/26/18 15:41	1
Vanadium	20.5	B C	50.0	4.0	ug/L		03/23/18 10:00	03/26/18 15:41	1

TestAmerica St. Louis

04/16/2018
Client Sample Results

REV.0

Client: CH2M Hill Plateau Remediation Company
Project/Site: A18-003 / S18-003 / W18-003

TestAmerica Job ID: 160-27368-1
SDG: SL2827

Method: 6020A - Metals (ICP/MS)

Client Sample ID: B3HHK1

Date Collected: 03/04/18 12:35

Date Received: 03/16/18 09:00

Lab Sample ID: 160-27368-4

Matrix: Water

Analyte

Result Qualifier

RL

MDL

Unit

D

Prepared

Analyzed

Dil Fac

Chromium

4.0

U D

10.0

4.0

ug/L

03/23/18 09:56

04/03/18 18:50

2

Client Sample ID: B3HL07

Date Collected: 03/14/18 12:53

Date Received: 03/16/18 09:00

Lab Sample ID: 160-27368-9

Matrix: Water

Analyte

Result Qualifier

RL

MDL

Unit

D

Prepared

Analyzed

Dil Fac

Chromium

9.9

B D

10.0

4.0

ug/L

03/23/18 09:56

04/03/18 19:24

2

Client Sample ID: B3HL41

Date Collected: 03/15/18 09:01

Date Received: 03/16/18 09:00

Lab Sample ID: 160-27368-13

Matrix: Water

Analyte

Result Qualifier

RL

MDL

Unit

D

Prepared

Analyzed

Dil Fac

Aluminum

20.0

U D

50.0

20.0

ug/L

03/23/18 09:56

04/03/18 19:50

2

Antimony

2.0

U D

5.0

2.0

ug/L

03/23/18 09:56

04/04/18 18:30

2

Arsenic

4.2

B D

10.0

4.0

ug/L

03/23/18 09:56

04/03/18 19:50

2

Barium

72.1

D

2.0

0.90

ug/L

03/23/18 09:56

04/03/18 19:50

2

Beryllium

0.20

U D

0.50

0.20

ug/L

03/23/18 09:56

04/03/18 19:50

2

Cadmium

0.20

U D

0.50

0.20

ug/L

03/23/18 09:56

04/03/18 19:50

2

Chromium

4.0

U D

10.0

4.0

ug/L

03/23/18 09:56

04/03/18 19:50

2

Cobalt

0.90

U D

2.0

0.90

ug/L

03/23/18 09:56

04/03/18 19:50

2

Copper

9.4

D

3.0

1.9

ug/L

03/23/18 09:56

04/03/18 19:50

2

Lead

1.0

U D

3.0

1.0

ug/L

03/23/18 09:56

04/03/18 19:50

2

Manganese

0.90

U D

2.0

0.90

ug/L

03/23/18 09:56

04/03/18 19:50

2

Molybdenum

2.2

B D

5.0

2.0

ug/L

03/23/18 09:56

04/04/18 18:30

2

Nickel

2.0

U D

5.0

2.0

ug/L

03/23/18 09:56

04/03/18 19:50

2

Selenium

11.0

D C

5.0

2.0

ug/L

03/23/18 09:56

04/02/18 20:35

2

Silver

0.90

U D

2.0

0.90

ug/L

03/23/18 09:56

04/03/18 19:50

2

Strontium

435

D

5.0

0.50

ug/L

03/23/18 09:56

04/03/18 19:50

2

Thallium

0.90

U D

2.0

0.90

ug/L

03/23/18 09:56

04/03/18 19:50

2

Thorium

0.90

U D

2.0

0.90

ug/L

03/23/18 09:56

04/03/18 19:50

2

Tin

1.2

U D

2.0

1.2

ug/L

03/23/18 09:56

04/03/18 19:50

2

Uranium

3.2

D

1.0

0.40

ug/L

03/23/18 09:56

04/03/18 19:50

2

Zinc

7.5

U D

20.0

7.5

ug/L

03/23/18 09:56

04/03/18 19:50

2

Method: 6020A - Metals (ICP/MS) - Dissolved

Client Sample ID: B3HHK4

Date Collected: 03/04/18 12:35

Date Received: 03/16/18 09:00

Lab Sample ID: 160-27368-3

Matrix: Water

Analyte

Result Qualifier

RL

MDL

Unit

D

Prepared

Analyzed

Dil Fac

Chromium

4.0

U D

10.0

4.0

ug/L

03/23/18 09:56

04/03/18 18:43

2

Client Sample ID: B3HHN6

Date Collected: 03/14/18 12:53

Date Received: 03/16/18 09:00

Lab Sample ID: 160-27368-8

Matrix: Water

Analyte

Result Qualifier

RL

Client: CH2M Hill Plateau Remediation Company
Project/Site: A18-003 / S18-003 / W18-003TestAmerica Job ID: 160-27368-1
SDG: SL2827**Method: 6020A - Metals (ICP/MS) - Dissolved****Client Sample ID: B3HJR1****Date Collected: 03/15/18 09:01****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-14****Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	20.0	U D	50.0	20.0	ug/L		03/23/18 09:56	04/03/18 19:57	2
Antimony	2.0	U D	5.0	2.0	ug/L		03/23/18 09:56	04/04/18 18:34	2
Arsenic	4.0	U D	10.0	4.0	ug/L		03/23/18 09:56	04/03/18 19:57	2
Barium	72.0	D	2.0	0.90	ug/L		03/23/18 09:56	04/03/18 19:57	2
Beryllium	0.20	U D	0.50	0.20	ug/L		03/23/18 09:56	04/03/18 19:57	2
Cadmium	0.20	U D	0.50	0.20	ug/L		03/23/18 09:56	04/03/18 19:57	2
Chromium	4.0	U D	10.0	4.0	ug/L		03/23/18 09:56	04/03/18 19:57	2
Cobalt	0.90	U D	2.0	0.90	ug/L		03/23/18 09:56	04/03/18 19:57	2
Copper	1.9	U D	3.0	1.9	ug/L		03/23/18 09:56	04/03/18 19:57	2
Lead	1.0	U D	3.0	1.0	ug/L		03/23/18 09:56	04/03/18 19:57	2
Manganese	6.4	D	2.0	0.90	ug/L		03/23/18 09:56	04/03/18 19:57	2
Molybdenum	2.5	B D	5.0	2.0	ug/L		03/23/18 09:56	04/04/18 18:34	2
Nickel	2.0	U D	5.0	2.0	ug/L		03/23/18 09:56	04/03/18 19:57	2
Selenium	11.7	D C	5.0	2.0	ug/L		03/23/18 09:56	04/02/18 20:42	2
Silver	0.90	U D	2.0	0.90	ug/L		03/23/18 09:56	04/03/18 19:57	2
Strontium	446	D	5.0	0.50	ug/L		03/23/18 09:56	04/03/18 19:57	2
Thallium	0.90	U D	2.0	0.90	ug/L		03/23/18 09:56	04/03/18 19:57	2
Thorium	0.90	U D	2.0	0.90	ug/L		03/23/18 09:56	04/03/18 19:57	2
Tin	1.2	U D	2.0	1.2	ug/L		03/23/18 09:56	04/03/18 19:57	2
Uranium	3.2	D	1.0	0.40	ug/L		03/23/18 09:56	04/03/18 19:57	2
Zinc	7.5	U D	20.0	7.5	ug/L		03/23/18 09:56	04/03/18 19:57	2

Method: 7470A - Mercury (CVAA)**Client Sample ID: B3HL41****Date Collected: 03/15/18 09:01****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-13****Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060	U	0.20	0.060	ug/L		03/19/18 11:03	03/20/18 09:12	1

Method: 7470A - Mercury (CVAA) - Dissolved**Client Sample ID: B3HJR1****Date Collected: 03/15/18 09:01****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-14****Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060	U	0.20	0.060	ug/L		03/19/18 11:03	03/20/18 09:25	1

General Chemistry**Client Sample ID: B3HK75****Date Collected: 03/15/18 12:32****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-10****Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	5.0	U	10.9	5.0	mg/L		03/20/18 08:52	03/20/18 14:09	1

TestAmerica St. Louis

Client: CH2M Hill Plateau Remediation Company
Project/Site: A18-003 / S18-003 / W18-003TestAmerica Job ID: 160-27368-1
SDG: SL2827**General Chemistry****Client Sample ID: B3HK87****Date Collected: 03/15/18 08:06****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-11****Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	146		5.0	0.54	mg/L			03/22/18 21:48	1
Sulfide	5.0	U	10.9	5.0	mg/L		03/20/18 08:52	03/20/18 14:09	1

Client Sample ID: B3HL39**Date Collected: 03/15/18 10:16****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-12****Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	92.0		5.0	0.54	mg/L			03/22/18 21:59	1

Method: 906.0 - Tritium, Total (LSC)**Client Sample ID: B3HDB5****Date Collected: 03/15/18 11:07****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-1****Matrix: Water**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Tritium	0.450	U	151	151	500	274	pCi/L	03/19/18 14:03	03/20/18 07:26	1

Method: SR-03-RC - Total Beta Strontium (GFPC)**Client Sample ID: B3HHD8****Date Collected: 03/15/18 10:16****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-5****Matrix: Water**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Strontium 89/90	0.0101	U	0.0854	0.0854	2.00	0.151	pCi/L	04/02/18 18:21	04/08/18 17:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Sr Carrier	81.7		40 - 110					04/02/18 18:21	04/08/18 17:38	1

Method: TC-02-RC - Technetium-99 (LSC)**Client Sample ID: B3HDB5****Date Collected: 03/15/18 11:07****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-1****Matrix: Water**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Technetium-99	0.473	U o y	1.04	1.04	3.00	1.74	pCi/L	03/21/18 20:57	03/27/18 23:31	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Tc-99m	99.9		30 - 105					03/21/18 20:57	03/27/18 23:31	1

TestAmerica St. Louis

04/16/2018
Client Sample Results**REV.0**Client: CH2M Hill Plateau Remediation Company
Project/Site: A18-003 / S18-003 / W18-003TestAmerica Job ID: 160-27368-1
SDG: SL2827**Method: TC-02-RC - Technetium-99 (LSC)****Client Sample ID: B3HFB7****Date Collected: 03/15/18 09:31****Date Received: 03/16/18 09:00****Lab Sample ID: 160-27368-2**
Matrix: Water

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium-99	72.0	o y	2.34	7.30	3.00	1.65	pCi/L	03/21/18 20:57	03/28/18 00:38	1
Tracer	%Yield	Qualifier		Limits				Prepared	Analyzed	Dil Fac
Tc-99m	105			30 - 105				03/21/18 20:57	03/28/18 00:38	1

Method: 8260C - Volatile Organic Compounds (GC/MS)**Lab Sample ID: MB 160-356505/7****Matrix: Water****Analysis Batch: 356505****Client Sample ID: Method Blank**
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.12	U	1.0	0.12	ug/L			03/20/18 09:26	1
1,1,1-Trichloroethane	0.17	U	1.0	0.17	ug/L			03/20/18 09:26	1
1,1,2,2-Tetrachloroethane	0.10	U	1.0	0.10	ug/L			03/20/18 09:26	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			03/20/18 09:26	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			03/20/18 09:26	1
1,1-Dichloroethene	0.10	U	1.0	0.10	ug/L			03/20/18 09:26	1
1,2,3-Trichloropropane	0.18	U	1.0	0.18	ug/L			03/20/18 09:26	1
1,2-Dibromo-3-Chloropropane	0.41	U	1.0	0.41	ug/L			03/20/18 09:26	1
1,2-Dibromoethane (EDB)	0.13	U	1.0	0.13	ug/L			03/20/18 09:26	1
1,2-Dichloroethane	0.22	U	1.0	0.22	ug/L			03/20/18 09:26	1
1,2-Dichloropropane	0.10	U	1.0	0.10	ug/L			03/20/18 09:26	1
1,4-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			03/20/18 09:26	1
2-Butanone (MEK)	0.47	U	5.0	0.47	ug/L			03/20/18 09:26	1
2-Hexanone	0.25	U	5.0	0.25	ug/L			03/20/18 09:26	1
4-Methyl-2-pentanone (MIBK)	0.22	U	5.0	0.22	ug/L			03/20/18 09:26	1
Acetone	0.55	U	2.0	0.55	ug/L			03/20/18 09:26	1
Acetonitrile	3.7	U	10	3.7	ug/L			03/20/18 09:26	1
Acrolein	2.8	U	10	2.8	ug/L			03/20/18 09:26	1
Acrylonitrile	0.73	U	10	0.73	ug/L			03/20/18 09:26	1
Allyl chloride	0.10	U	2.0	0.10	ug/L			03/20/18 09:26	1
Benzene	0.10	U	1.0	0.10	ug/L			03/20/18 09:26	1
Bromodichloromethane	0.14	U	1.0	0.14	ug/L			03/20/18 09:26	1
Bromoform	0.17	U	1.0	0.17	ug/L			03/20/18 09:26	1
Bromomethane	0.25	U	2.0	0.25	ug/L			03/20/18 09:26	1
Carbon disulfide	0.10	U	1.0	0.10	ug/L			03/20/18 09:26	1
Carbon tetrachloride	0.18	U	1.0	0.18	ug/L			03/20/18 09:26	1
Chlorobenzene	0.11	U	1.0	0.11	ug/L			03/20/18 09:26	1
Chloroethane	0.16	U	2.0	0.16	ug/L			03/20/18 09:26	1
Chloroform	0.10	U	1.0	0.10	ug/L			03/20/18 09:26	1
Chloromethane	0.10	U	2.0	0.10	ug/L			03/20/18 09:26	1
Chloroprene	0.16	U	1.0	0.16	ug/L			03/20/18 09:26	1
cis-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			03/20/18 09:26	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			03/20/18 09:26	1
Dibromochloromethane	0.14	U	1.0	0.14	ug/L			03/20/18 09:26	1
Dibromomethane	0.21	U	1.0	0.21	ug/L			03/20/18 09:26	1
Dichlorodifluoromethane	0.14	U	2.0	0.14	ug/L			03/20/18 09:26	1
Ethyl Cyanide	1.4	U	10	1.4	ug/L			03/20/18 09:26	1
Ethyl methacrylate	0.17	U	1.0	0.17	ug/L			03/20/18 09:26	1
Ethylbenzene	0.12	U	1.0	0.12	ug/L			03/20/18 09:26	1
Iodomethane	0.10	U	2.0	0.10	ug/L			03/20/18 09:26	1
Isobutyl alcohol	15.5	J	80	8.3	ug/L			03/20/18 09:26	1
Methacrylonitrile	1.2	U	10	1.2	ug/L			03/20/18 09:26	1
Methyl methacrylate	0.27	U	2.0	0.27	ug/L			03/20/18 09:26	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			03/20/18 09:26	1
Styrene	0.13	U	1.0	0.13	ug/L			03/20/18 09:26	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			03/20/18 09:26	1
Toluene	0.14	U	1.0	0.14	ug/L			03/20/18 09:26	1
trans-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			03/20/18 09:26	1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**Lab Sample ID: MB 160-356505/7****Matrix: Water****Analysis Batch: 356505****Client Sample ID: Method Blank**
Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
trans-1,3-Dichloropropene	0.10	U	1.0	0.10	ug/L			03/20/18 09:26	1
trans-1,4-Dichloro-2-butene	0.29	U	2.0	0.29	ug/L			03/20/18 09:26	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			03/20/18 09:26	1
Trichloromonofluoromethane	0.11	U	1.0	0.11	ug/L			03/20/18 09:26	1
Vinyl acetate	0.18	U	2.0	0.18	ug/L			03/20/18 09:26	1
Vinyl chloride	0.19	U	2.0	0.19	ug/L			03/20/18 09:26	1
Xylenes, Total	0.27	U	3.0	0.27	ug/L			03/20/18 09:26	1

Tentatively Identified Compound	MB		Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
n-Butyl acetate	0.426	J	ug/L		11.26	123-86-4		03/20/18 09:26	1
n-Nonyl Aldehyde	0.929	J	ug/L		15.03	124-19-6		03/20/18 09:26	1
Tentatively Identified Compound	None		ug/L					03/20/18 09:26	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	91		75 - 129			1
4-Bromofluorobenzene (Surr)	113		81 - 130			1
Dibromofluoromethane (Surr)	90		81 - 124			1
Toluene-d8 (Surr)	105		87 - 128			1

Lab Sample ID: LCS 160-356505/4**Matrix: Water****Analysis Batch: 356505****Client Sample ID: Lab Control Sample**
Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
1,1,1,2-Tetrachloroethane	10.0	10.1		ug/L		101	80 - 120
1,1,1-Trichloroethane	10.0	9.33		ug/L		93	85 - 116
1,1,2,2-Tetrachloroethane	10.0	9.47		ug/L		95	80 - 120
1,1,2-Trichloroethane	10.0	9.19		ug/L		92	80 - 120
1,1-Dichloroethane	10.0	9.25		ug/L		93	80 - 120
1,1-Dichloroethene	10.0	9.47		ug/L		95	80 - 120
1,2,3-Trichloropropane	10.0	9.80		ug/L		98	77 - 117
1,2-Dibromo-3-Chloropropane	10.0	9.51		ug/L		95	73 - 123
1,2-Dibromoethane (EDB)	10.0	9.28		ug/L		93	80 - 120
1,2-Dichloroethane	10.0	8.82		ug/L		88	80 - 115
1,2-Dichloropropane	10.0	9.35		ug/L		93	80 - 120
1,4-Dichlorobenzene	10.0	10.3		ug/L		103	80 - 120
2-Butanone (MEK)	10.0	8.29		ug/L		83	67 - 127
2-Hexanone	10.0	9.39		ug/L		94	70 - 123
4-Methyl-2-pentanone (MIBK)	10.0	9.15		ug/L		92	75 - 126
Acetone	10.0	8.99		ug/L		90	69 - 129
Acetonitrile	100	84.2		ug/L		84	67 - 122
Acrolein	50.0	46.6		ug/L		93	58 - 140
Acrylonitrile	100	89.2		ug/L		89	80 - 122
Allyl chloride	10.0	9.37		ug/L		94	25 - 140
Benzene	10.0	9.35		ug/L		94	80 - 120
Bromodichloromethane	10.0	9.32		ug/L		93	80 - 120
Bromoform	10.0	9.72		ug/L		97	80 - 120

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**Lab Sample ID: LCS 160-356505/4****Client Sample ID: Lab Control Sample**
Prep Type: Total/NA**Matrix: Water****Analysis Batch: 356505**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits	5
	Added	Result	Qualifier						
Bromomethane	10.0	9.41		ug/L		94	70 - 124		6
Carbon disulfide	10.0	9.92		ug/L		99	80 - 121		7
Carbon tetrachloride	10.0	10.0		ug/L		100	83 - 125		8
Chlorobenzene	10.0	9.79		ug/L		98	80 - 120		9
Chloroethane	10.0	10.0		ug/L		100	73 - 119		10
Chloroform	10.0	9.20		ug/L		92	80 - 120		11
Chloromethane	10.0	10.4		ug/L		104	72 - 124		12
Chloroprene	10.0	9.49		ug/L		95	79 - 132		
cis-1,2-Dichloroethylene	10.0	9.40		ug/L		94	80 - 120		
cis-1,3-Dichloropropene	10.0	9.64		ug/L		96	80 - 120		
Dibromochloromethane	10.0	10.1		ug/L		101	80 - 120		
Dibromomethane	10.0	8.93		ug/L		89	80 - 120		
Dichlorodifluoromethane	10.0	11.6		ug/L		116	24 - 140		
Ethyl Cyanide	100	86.9		ug/L		87	77 - 121		
Ethyl methacrylate	10.0	9.46		ug/L		95	69 - 123		
Ethylbenzene	10.0	10.1		ug/L		101	80 - 120		
Iodomethane	10.0	9.75		ug/L		98	69 - 129		
Isobutyl alcohol	250	213		ug/L		85	64 - 124		
Methacrylonitrile	100	90.2		ug/L		90	79 - 126		
Methyl methacrylate	20.0	18.8		ug/L		94	70 - 123		
Methylene Chloride	10.0	9.22		ug/L		92	80 - 120		
Styrene	10.0	10.5		ug/L		105	81 - 133		
Tetrachloroethylene	10.0	9.54		ug/L		95	83 - 123		
Toluene	10.0	9.97		ug/L		100	80 - 120		
trans-1,2-Dichloroethylene	10.0	9.38		ug/L		94	80 - 120		
trans-1,3-Dichloropropene	10.0	9.73		ug/L		97	82 - 124		
trans-1,4-Dichloro-2-butene	10.0	9.17		ug/L		92	64 - 137		
Trichloroethene	10.0	9.28		ug/L		93	80 - 120		
Trichloromonofluoromethane	10.0	9.58		ug/L		96	71 - 132		
Vinyl acetate	10.0	9.76		ug/L		98	63 - 140		
Vinyl chloride	10.0	10.0		ug/L		100	77 - 122		
Xylenes, Total	20.0	20.4		ug/L		102	80 - 120		

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	94		75 - 129
4-Bromofluorobenzene (Surr)	93		81 - 130
Dibromofluoromethane (Surr)	97		81 - 124
Toluene-d8 (Surr)	103		87 - 128

Lab Sample ID: LCSD 160-356505/5**Client Sample ID: Lab Control Sample Dup**
Prep Type: Total/NA**Matrix: Water****Analysis Batch: 356505**

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Added	Result	Qualifier						
1,1,1,2-Tetrachloroethane	10.0	10.1		ug/L		101	80 - 120	0	20
1,1,1-Trichloroethane	10.0	9.43		ug/L		94	85 - 116	1	20
1,1,2,2-Tetrachloroethane	10.0	9.23		ug/L		92	80 - 120	3	20
1,1,2-Trichloroethane	10.0	9.13		ug/L		91	80 - 120	1	20

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Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**Lab Sample ID: LCSD 160-356505/5****Client Sample ID: Lab Control Sample Dup**
Prep Type: Total/NA**Matrix: Water****Analysis Batch: 356505**

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.		RPD	RPD Limit
	Added	Result	Qualifier				Limits	RPD		
1,1-Dichloroethane	10.0	9.30		ug/L	93	80 - 120		0	20	6
1,1-Dichloroethene	10.0	9.35		ug/L	94	80 - 120		1	20	7
1,2,3-Trichloropropane	10.0	9.97		ug/L	100	77 - 117		2	20	8
1,2-Dibromo-3-Chloropropane	10.0	10.0		ug/L	100	73 - 123		5	20	9
1,2-Dibromoethane (EDB)	10.0	9.14		ug/L	91	80 - 120		2	20	10
1,2-Dichloroethane	10.0	8.90		ug/L	89	80 - 115		1	20	11
1,2-Dichloropropane	10.0	9.36		ug/L	94	80 - 120		0	20	12
1,4-Dichlorobenzene	10.0	9.63		ug/L	96	80 - 120		7	20	
2-Butanone (MEK)	10.0	8.43		ug/L	84	67 - 127		2	20	
2-Hexanone	10.0	9.69		ug/L	97	70 - 123		3	20	
4-Methyl-2-pentanone (MIBK)	10.0	9.39		ug/L	94	75 - 126		3	20	
Acetone	10.0	8.29		ug/L	83	69 - 129		8	20	
Acetonitrile	100	85.0		ug/L	85	67 - 122		1	20	
Acrolein	50.0	48.4		ug/L	97	58 - 140		4	20	
Acrylonitrile	100	89.8		ug/L	90	80 - 122		1	20	
Allyl chloride	10.0	9.40		ug/L	94	25 - 140		0	20	
Benzene	10.0	9.45		ug/L	95	80 - 120		1	20	
Bromodichloromethane	10.0	9.43		ug/L	94	80 - 120		1	20	
Bromoform	10.0	9.49		ug/L	95	80 - 120		2	20	
Bromomethane	10.0	9.37		ug/L	94	70 - 124		0	20	
Carbon disulfide	10.0	9.92		ug/L	99	80 - 121		0	20	
Carbon tetrachloride	10.0	9.96		ug/L	100	83 - 125		1	20	
Chlorobenzene	10.0	9.42		ug/L	94	80 - 120		4	20	
Chloroethane	10.0	10.1		ug/L	101	73 - 119		0	20	
Chloroform	10.0	9.40		ug/L	94	80 - 120		2	20	
Chloromethane	10.0	10.4		ug/L	104	72 - 124		0	20	
Chloroprene	10.0	9.53		ug/L	95	79 - 132		0	20	
cis-1,2-Dichloroethylene	10.0	9.30		ug/L	93	80 - 120		1	20	
cis-1,3-Dichloropropene	10.0	9.48		ug/L	95	80 - 120		2	20	
Dibromochloromethane	10.0	9.69		ug/L	97	80 - 120		4	20	
Dibromomethane	10.0	9.14		ug/L	91	80 - 120		2	20	
Dichlorodifluoromethane	10.0	11.7		ug/L	117	24 - 140		1	20	
Ethyl Cyanide	100	86.7		ug/L	87	77 - 121		0	20	
Ethyl methacrylate	10.0	9.20		ug/L	92	69 - 123		3	20	
Ethylbenzene	10.0	9.84		ug/L	98	80 - 120		3	20	
Iodomethane	10.0	10.2		ug/L	102	69 - 129		4	20	
Isobutyl alcohol	250	212		ug/L	85	64 - 124		1	20	
Methacrylonitrile	100	92.2		ug/L	92	79 - 126		2	20	
Methyl methacrylate	20.0	18.0		ug/L	90	70 - 123		4	20	
Methylene Chloride	10.0	9.24		ug/L	92	80 - 120		0	20	
Styrene	10.0	10.2		ug/L	102	81 - 133		3	20	
Tetrachloroethylene	10.0	9.46		ug/L	95	83 - 123		1	20	
Toluene	10.0	9.65		ug/L	96	80 - 120		3	20	
trans-1,2-Dichloroethylene	10.0	9.19		ug/L	92	80 - 120		2	20	
trans-1,3-Dichloropropene	10.0	9.65		ug/L	96	82 - 124		1	20	
trans-1,4-Dichloro-2-butene	10.0	8.99		ug/L	90	64 - 137		2	20	
Trichloroethene	10.0	9.31		ug/L	93	80 - 120		0	20	
Trichloromonofluoromethane	10.0	9.61		ug/L	96	71 - 132		0	20	

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**Lab Sample ID: LCSD 160-356505/5****Matrix: Water****Analysis Batch: 356505****Client Sample ID: Lab Control Sample Dup**
Prep Type: Total/NA

Analyte		Spike	LCSD	LCSD	Unit	D	%Rec.		RPD	Limit
		Added	Result	Qualifier			%Rec	Limits		
Vinyl acetate		10.0	9.68		ug/L	97	63 - 140		1	20
Vinyl chloride		10.0	9.94		ug/L	99	77 - 122		1	20
Xylenes, Total		20.0	19.6		ug/L	98	80 - 120		4	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	91		75 - 129
4-Bromofluorobenzene (Surr)	91		81 - 130
Dibromofluoromethane (Surr)	92		81 - 124
Toluene-d8 (Surr)	98		87 - 128

Lab Sample ID: 160-27366-A-1 MS**Matrix: Water****Analysis Batch: 356505****Client Sample ID: Matrix Spike**
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec.		Limits
	Result	Qualifier	Added	Result	Qualifier			%Rec	Limits	
1,1,1,2-Tetrachloroethane	0.12	U	10.0	9.76		ug/L	98	80 - 120		
1,1,1-Trichloroethane	0.17	U	10.0	9.53		ug/L	95	82 - 124		
1,1,2,2-Tetrachloroethane	0.10	U	10.0	8.75		ug/L	87	75 - 121		
1,1,2-Trichloroethane	0.13	U	10.0	9.01		ug/L	90	80 - 120		
1,1-Dichloroethane	0.070	U	10.0	9.25		ug/L	93	80 - 122		
1,1-Dichloroethene	0.10	U	10.0	9.36		ug/L	94	80 - 120		
1,2,3-Trichloropropane	0.18	U	10.0	9.66		ug/L	97	71 - 119		
1,2-Dibromo-3-Chloropropane	0.41	U	10.0	8.30		ug/L	83	64 - 130		
1,2-Dibromoethane (EDB)	0.13	U	10.0	8.93		ug/L	89	82 - 122		
1,2-Dichloroethane	0.22	U	10.0	8.78		ug/L	88	80 - 120		
1,2-Dichloropropane	0.10	U	10.0	9.42		ug/L	94	80 - 120		
1,4-Dichlorobenzene	0.10	U	10.0	9.51		ug/L	95	80 - 120		
2-Butanone (MEK)	0.47	U	10.0	7.93		ug/L	79	53 - 145		
2-Hexanone	0.25	U	10.0	8.61		ug/L	86	59 - 132		
4-Methyl-2-pentanone (MIBK)	0.22	U	10.0	8.56		ug/L	86	70 - 131		
Acetone	4.7		10.0	12.6		ug/L	79	50 - 137		
Acetonitrile	3.7	U	100	80.4		ug/L	80	67 - 138		
Acrolein	2.8	U	50.0	44.7		ug/L	89	52 - 150		
Acrylonitrile	0.73	U	100	88.7		ug/L	89	73 - 137		
Allyl chloride	0.10	U	10.0	9.50		ug/L	95	49 - 150		
Benzene	0.10	U	10.0	9.54		ug/L	95	80 - 120		
Bromodichloromethane	0.14	U	10.0	9.22		ug/L	92	80 - 120		
Bromoform	0.17	U	10.0	8.87		ug/L	89	81 - 121		
Bromomethane	0.25	U	10.0	9.16		ug/L	92	55 - 137		
Carbon disulfide	0.10	U	10.0	9.83		ug/L	98	80 - 121		
Carbon tetrachloride	0.18	U	10.0	10.1		ug/L	101	77 - 131		
Chlorobenzene	0.11	U	10.0	9.53		ug/L	95	80 - 120		
Chloroethane	0.16	U	10.0	9.62		ug/L	96	71 - 126		
Chloroform	0.10	U	10.0	9.30		ug/L	93	80 - 120		
Chloromethane	0.10	U	10.0	10.3		ug/L	103	62 - 132		
Chloroprene	0.16	U	10.0	9.56		ug/L	96	74 - 137		
cis-1,2-Dichloroethylene	0.10	U	10.0	9.40		ug/L	94	80 - 120		
cis-1,3-Dichloropropene	0.16	U	10.0	9.26		ug/L	93	83 - 127		

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**Lab Sample ID: 160-27366-A-1 MS****Matrix: Water****Analysis Batch: 356505****Client Sample ID: Matrix Spike
Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits	
	Result	Qualifier	Added	Result	Qualifier						
Dibromochloromethane	0.14	U	10.0	9.65		ug/L		96	84 - 123		
Dibromomethane	0.21	U	10.0	8.85		ug/L		88	78 - 122		
Dichlorodifluoromethane	0.14	U	10.0	11.5		ug/L		115	67 - 135		
Ethyl Cyanide	1.4	U	100	79.4		ug/L		79	67 - 141		
Ethyl methacrylate	0.17	U	10.0	8.63		ug/L		86	69 - 123		
Ethylbenzene	0.12	U	10.0	9.88		ug/L		99	84 - 125		
Iodomethane	0.10	U	10.0	9.65		ug/L		97	53 - 141		
Isobutyl alcohol	8.3	U	250	195		ug/L		78	59 - 138		
Methacrylonitrile	1.2	U	100	87.3		ug/L		87	70 - 142		
Methyl methacrylate	0.27	U	20.0	17.4		ug/L		87	66 - 131		
Methylene Chloride	1.5		10.0	10.6		ug/L		91	80 - 120		
Styrene	0.13	U	10.0	10.2		ug/L		102	77 - 139		
Tetrachloroethylene	0.18	U	10.0	9.43		ug/L		94	80 - 126		
Toluene	0.14	U	10.0	9.74		ug/L		97	85 - 123		
trans-1,2-Dichloroethylene	0.10	U	10.0	9.40		ug/L		94	80 - 120		
trans-1,3-Dichloropropene	0.10	U	10.0	9.28		ug/L		93	83 - 125		
trans-1,4-Dichloro-2-butene	0.29	U	10.0	8.14		ug/L		81	56 - 139		
Trichloroethylene	0.25	U	10.0	9.33		ug/L		93	81 - 125		
Trichloromonofluoromethane	0.11	U	10.0	9.31		ug/L		93	69 - 133		
Vinyl acetate	0.18	U	10.0	9.35		ug/L		93	58 - 150		
Vinyl chloride	0.19	U	10.0	9.62		ug/L		96	70 - 129		
Xylenes, Total	0.27	U	20.0	20.0		ug/L		100	80 - 120		

MS

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	88		75 - 129
4-Bromofluorobenzene (Surr)	87		81 - 130
Dibromofluoromethane (Surr)	94		81 - 124
Toluene-d8 (Surr)	99		87 - 128

Lab Sample ID: 160-27366-A-1 MSD**Matrix: Water****Analysis Batch: 356505****Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
1,1,1,2-Tetrachloroethane	0.12	U	10.0	9.64		ug/L		96	80 - 120	1	20
1,1,1-Trichloroethane	0.17	U	10.0	9.51		ug/L		95	82 - 124	0	20
1,1,2,2-Tetrachloroethane	0.10	U	10.0	9.01		ug/L		90	75 - 121	3	20
1,1,2-Trichloroethane	0.13	U	10.0	8.76		ug/L		88	80 - 120	3	20
1,1-Dichloroethane	0.070	U	10.0	9.20		ug/L		92	80 - 122	1	20
1,1-Dichloroethylene	0.10	U	10.0	9.39		ug/L		94	80 - 120	0	20
1,2,3-Trichloropropane	0.18	U	10.0	9.52		ug/L		95	71 - 119	2	20
1,2-Dibromo-3-Chloropropane	0.41	U	10.0	8.68		ug/L		87	64 - 130	4	20
1,2-Dibromoethane (EDB)	0.13	U	10.0	8.64		ug/L		86	82 - 122	3	20
1,2-Dichloroethane	0.22	U	10.0	8.51		ug/L		85	80 - 120	3	20
1,2-Dichloropropane	0.10	U	10.0	9.29		ug/L		93	80 - 120	1	20
1,4-Dichlorobenzene	0.10	U	10.0	9.88		ug/L		99	80 - 120	4	20
2-Butanone (MEK)	0.47	U	10.0	7.86		ug/L		79	53 - 145	1	20
2-Hexanone	0.25	U	10.0	8.46		ug/L		85	59 - 132	2	20

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Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**Lab Sample ID: 160-27366-A-1 MSD****Client Sample ID: Matrix Spike Duplicate**
Prep Type: Total/NA**Matrix: Water****Analysis Batch: 356505**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
4-Methyl-2-pentanone (MIBK)	0.22	U	10.0	8.59		ug/L	86	70 - 131	0	20	
Acetone	4.7		10.0	11.0		ug/L	63	50 - 137	14	20	
Acetonitrile	3.7	U	100	82.1		ug/L	82	67 - 138	2	20	
Acrolein	2.8	U	50.0	45.0		ug/L	90	52 - 150	1	20	
Acrylonitrile	0.73	U	100	84.4		ug/L	84	73 - 137	5	20	
Allyl chloride	0.10	U	10.0	9.61		ug/L	96	49 - 150	1	20	
Benzene	0.10	U	10.0	9.53		ug/L	95	80 - 120	0	20	
Bromodichloromethane	0.14	U	10.0	8.98		ug/L	90	80 - 120	3	20	
Bromoform	0.17	U	10.0	8.73		ug/L	87	81 - 121	2	20	
Bromomethane	0.25	U	10.0	9.36		ug/L	94	55 - 137	2	20	
Carbon disulfide	0.10	U	10.0	9.74		ug/L	97	80 - 121	1	20	
Carbon tetrachloride	0.18	U	10.0	9.96		ug/L	100	77 - 131	1	20	
Chlorobenzene	0.11	U	10.0	9.45		ug/L	95	80 - 120	1	20	
Chloroethane	0.16	U	10.0	9.96		ug/L	100	71 - 126	3	20	
Chloroform	0.10	U	10.0	9.16		ug/L	92	80 - 120	1	20	
Chloromethane	0.10	U	10.0	10.6		ug/L	106	62 - 132	3	20	
Chloroprene	0.16	U	10.0	9.62		ug/L	96	74 - 137	1	20	
cis-1,2-Dichloroethylene	0.10	U	10.0	9.19		ug/L	92	80 - 120	2	20	
cis-1,3-Dichloropropene	0.16	U	10.0	9.03		ug/L	90	83 - 127	3	20	
Dibromochloromethane	0.14	U	10.0	9.80		ug/L	98	84 - 123	2	20	
Dibromomethane	0.21	U	10.0	8.82		ug/L	88	78 - 122	0	20	
Dichlorodifluoromethane	0.14	U	10.0	11.9		ug/L	119	67 - 135	3	20	
Ethyl Cyanide	1.4	U	100	83.8		ug/L	84	67 - 141	5	20	
Ethyl methacrylate	0.17	U	10.0	8.55		ug/L	85	69 - 123	1	20	
Ethylbenzene	0.12	U	10.0	9.89		ug/L	99	84 - 125	0	20	
Iodomethane	0.10	U	10.0	9.89		ug/L	99	53 - 141	2	20	
Isobutyl alcohol	8.3	U	250	199		ug/L	80	59 - 138	2	20	
Methacrylonitrile	1.2	U	100	87.9		ug/L	88	70 - 142	1	20	
Methyl methacrylate	0.27	U	20.0	16.9		ug/L	85	66 - 131	3	20	
Methylene Chloride	1.5		10.0	10.4		ug/L	89	80 - 120	1	20	
Styrene	0.13	U	10.0	10.3		ug/L	103	77 - 139	1	20	
Tetrachloroethylene	0.18	U	10.0	9.29		ug/L	93	80 - 126	1	20	
Toluene	0.14	U	10.0	9.65		ug/L	97	85 - 123	1	20	
trans-1,2-Dichloroethylene	0.10	U	10.0	9.30		ug/L	93	80 - 120	1	20	
trans-1,3-Dichloropropene	0.10	U	10.0	9.05		ug/L	90	83 - 125	3	20	
trans-1,4-Dichloro-2-butene	0.29	U	10.0	8.56		ug/L	86	56 - 139	5	20	
Trichloroethene	0.25	U	10.0	9.32		ug/L	93	81 - 125	0	20	
Trichloromonofluoromethane	0.11	U	10.0	9.54		ug/L	95	69 - 133	2	20	
Vinyl acetate	0.18	U	10.0	9.32		ug/L	93	58 - 150	0	20	
Vinyl chloride	0.19	U	10.0	9.95		ug/L	99	70 - 129	3	20	
Xylenes, Total	0.27	U	20.0	19.9		ug/L	100	80 - 120	0	20	

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	87		75 - 129
4-Bromofluorobenzene (Surr)	87		81 - 130
Dibromofluoromethane (Surr)	93		81 - 124
Toluene-d8 (Surr)	98		87 - 128

Method: 8270D - Semivolatile Organic Compounds (GC/MS)**Lab Sample ID: MB 160-356443/1-A****Matrix: Water****Analysis Batch: 357801****Client Sample ID: Method Blank****Prep Type: Total/NA****Prep Batch: 356443**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	1
1,2,4-Trichlorobenzene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	2
1,2-Dichlorobenzene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	3
1,3-Dichlorobenzene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	4
1,4-Dichlorobenzene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	5
1,4-Dioxane	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	6
1,4-Naphthoquinone	1.0	U	50	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	7
1-Naphthylamine	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	8
2,3,4,6-Tetrachlorophenol	1.0	U	50	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	9
2,4,5-Trichlorophenol	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	10
2,4,6-Trichlorophenol	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	11
2,4-Dichlorophenol	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	12
2,4-Dimethylphenol	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	1
2,4-Dinitrophenol	2.0	U	50	2.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	2
2,4-Dinitrotoluene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	3
2,6-Dichlorophenol	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	4
2,6-Dinitrotoluene	2.2	U	10	2.2	ug/L	03/19/18 12:10	03/27/18 11:48	1	5
2-Acetylaminofluorene	1.0	U	100	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	6
2-Chloronaphthalene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	7
2-Chlorophenol	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	8
2-Methylnaphthalene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	9
2-Methylphenol	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	10
2-Naphthylamine	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	11
2-Nitroaniline	1.1	U	10	1.1	ug/L	03/19/18 12:10	03/27/18 11:48	1	12
2-Nitrophenol	1.5	U	10	1.5	ug/L	03/19/18 12:10	03/27/18 11:48	1	1
2-Picoline	2.0	U	20	2.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	2
3 & 4 Methylphenol	2.0	U	20	2.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	3
3,3'-Dichlorobenzidine	1.3	U	50	1.3	ug/L	03/19/18 12:10	03/27/18 11:48	1	4
3,3'-Dimethylbenzidine	2.6	U	50	2.6	ug/L	03/19/18 12:10	03/27/18 11:48	1	5
3-Methylcholanthrene	1.0	U	20	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	6
3-Nitroaniline	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	7
4,6-Dinitro-2-methylphenol	1.3	U	10	1.3	ug/L	03/19/18 12:10	03/27/18 11:48	1	8
4-Aminobiphenyl	1.1	U	50	1.1	ug/L	03/19/18 12:10	03/27/18 11:48	1	9
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	10
4-Chloro-3-methylphenol	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	11
4-Chloroaniline	2.0	U	10	2.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	12
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	1
4-Nitroaniline	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	2
4-Nitrophenol	2.0	U	10	2.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	3
4-Nitroquinoline-1-oxide	5.0	U	100	5.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	4
5-Nitro-o-toluidine	1.0	U	20	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	5
7,12-Dimethylbenz(a)anthracene	1.0	U	20	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	6
Acenaphthene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	7
Acenaphthylene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	8
Acetophenone	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	9
alpha,alpha-Dimethyl phenethylamine	22	U	50	22	ug/L	03/19/18 12:10	03/27/18 11:48	1	10
Aniline	1.3	U	10	1.3	ug/L	03/19/18 12:10	03/27/18 11:48	1	11
Anthracene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	12

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**Lab Sample ID: MB 160-356443/1-A****Matrix: Water****Analysis Batch: 357801****Client Sample ID: Method Blank**
Prep Type: Total/NA
Prep Batch: 356443

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aramite, Total	5.0	U	20	5.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	1
Benzo[a]anthracene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	2
Benzo[a]pyrene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	3
Benzo[b]fluoranthene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	4
Benzo[g,h,i]perylene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	5
Benzo[k]fluoranthene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	6
Benzyl alcohol	3.0	U	10	3.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	7
bis(2 chloro-1-methylethyl) ether	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	8
Bis(2-chloroethoxy)methane	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	9
Bis(2-chloroethyl)ether	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	10
Bis(2-ethylhexyl) phthalate	1.9	U	10	1.9	ug/L	03/19/18 12:10	03/27/18 11:48	1	11
Butyl benzyl phthalate	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	12
Carbazole	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	1
Chlorobenzilate	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	2
Chrysene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	3
Diallate	2.0	U	20	2.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	4
Dibenz(a,h)anthracene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	5
Dibenzofuran	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	6
Diethyl phthalate	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	7
Dimethoate	1.0	U	20	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	8
Dimethyl phthalate	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	9
Di-n-butyl phthalate	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	10
Dinitrobenzene, m-	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	11
Di-n-octyl phthalate	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	12
Dinoseb	2.0	U	20	2.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	1
Diphenylamine + N-Nitrosodiphenylamine	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	2
Disulfoton	1.0	U	50	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	3
Ethyl methanesulfonate	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	4
Famphur	1.7	U	100	1.7	ug/L	03/19/18 12:10	03/27/18 11:48	1	5
Fluoranthene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	6
Fluorene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	7
Hexachlorobenzene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	8
Hexachlorobutadiene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	9
Hexachlorocyclopentadiene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	10
Hexachloroethane	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	11
Hexachlorophene	10	U	250	10	ug/L	03/19/18 12:10	03/27/18 11:48	1	12
Hexachloropropene	1.0	U	100	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	1
Indeno[1,2,3-cd]pyrene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	2
Isodrin	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	3
Isophorone	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	4
Isosafrole	5.0	U	20	5.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	5
Kepone	20	U	100	20	ug/L	03/19/18 12:10	03/27/18 11:48	1	6
Methapyrilene	1.3	U	50	1.3	ug/L	03/19/18 12:10	03/27/18 11:48	1	7
Methyl methanesulfonate	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	8
Methyl parathion	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	9
Naphthalene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	10
Nitrobenzene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48	1	11

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 160-356443/1-A
Matrix: Water
Analysis Batch: 357801

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 356443

Analyte	MB		RL	MDL	Unit	D	Prepared		Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed		
N-Nitrosodiethylamine	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
N-Nitrosodimethylamine	2.0	U	10	2.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
N-Nitrosodi-n-butylamine	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
N-Nitrosodi-n-propylamine	1.5	U	10	1.5	ug/L	03/19/18 12:10	03/27/18 11:48		1	
N-Nitrosomethylethylamine	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
N-Nitrosomorpholine	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
N-Nitrosopiperidine	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
N-Nitrosopyrrolidine	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
o,o',o"-Triethylphosphorothioate	1.1	U	50	1.1	ug/L	03/19/18 12:10	03/27/18 11:48		1	
O,O-Diethyl O-2-pyrazinyl phosphorothioate	1.0	U	50	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
o-Toluidine	1.0	U	20	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
Parathion	1.0	U	50	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
p-Dimethylamino azobenzene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
Pentachlorobenzene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
Pentachloroethane	1.0	U	50	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
Pentachloronitrobenzene	1.0	U	50	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
Pentachlorophenol	1.3	U	50	1.3	ug/L	03/19/18 12:10	03/27/18 11:48		1	
Phenacetin	1.0	U	20	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
Phenanthrene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
Phenol	2.0	U	10	2.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
Phorate	2.0	U	50	2.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
p-Phenylenediamine	1.0	U	100	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
Pronamide	1.0	U	20	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
Pyrene	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
Pyridine	2.0	U	20	2.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
Safrole	1.0	U	20	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
sym-Trinitrobenzene	1.0	U	50	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
Tetraethyl dithiopyrophosphate (sulfotep)	1.0	U	50	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	
Tributyl phosphate	1.0	U	10	1.0	ug/L	03/19/18 12:10	03/27/18 11:48		1	

Tentatively Identified Compound	MB		Unit	D	RT	CAS No.	Prepared		Analyzed	Dil Fac
	Est. Result	Qualifier					Prepared	Analyzed		
Unknown	10.8	N	ug/L		12.43		03/19/18 12:10	03/27/18 11:48		1

Surrogate	MB		Limits	Prepared		Analyzed	Dil Fac
	%Recovery	Qualifier		Prepared	Analyzed		
2,4,6-Tribromophenol (Surr)	87		37 - 120	03/19/18 12:10	03/27/18 11:48		1
2-Fluorobiphenyl (Surr)	79		43 - 108	03/19/18 12:10	03/27/18 11:48		1
2-Fluorophenol (Surr)	45		15 - 59	03/19/18 12:10	03/27/18 11:48		1
Nitrobenzene-d5 (Surr)	83		50 - 101	03/19/18 12:10	03/27/18 11:48		1
Phenol-d5 (Surr)	28		10 - 50	03/19/18 12:10	03/27/18 11:48		1
Terphenyl-d14 (Surr)	93		21 - 97	03/19/18 12:10	03/27/18 11:48		1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**Lab Sample ID: LCS 160-356443/2-A****Matrix: Water****Analysis Batch: 357801****Client Sample ID: Lab Control Sample**
Prep Type: Total/NA
Prep Batch: 356443

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,2,4-Trichlorobenzene	100	57.4		ug/L		57	56 - 100
1,2-Dichlorobenzene	100	54.2		ug/L		54	50 - 99
1,3-Dichlorobenzene	100	50.6	o	ug/L		51	55 - 99
1,4-Dichlorobenzene	100	52.0		ug/L		52	47 - 99
2,4,5-Trichlorophenol	100	79.3		ug/L		79	56 - 113
2,4,6-Trichlorophenol	100	81.4		ug/L		81	47 - 116
2,4-Dichlorophenol	100	73.4		ug/L		73	55 - 104
2,4-Dimethylphenol	100	71.1		ug/L		71	53 - 99
2,4-Dinitrophenol	100	79.6		ug/L		80	53 - 119
2,4-Dinitrotoluene	100	86.0		ug/L		86	57 - 117
2,6-Dinitrotoluene	100	84.1		ug/L		84	59 - 117
2-Chloronaphthalene	100	74.4		ug/L		74	58 - 109
2-Chlorophenol	100	65.6		ug/L		66	47 - 97
2-Methylnaphthalene	100	68.6		ug/L		69	54 - 101
2-Methylphenol	100	55.5		ug/L		56	40 - 96
2-Nitroaniline	100	81.2		ug/L		81	57 - 120
2-Nitrophenol	100	75.4		ug/L		75	58 - 111
3 & 4 Methylphenol	100	57.2		ug/L		57	40 - 87
3,3'-Dichlorobenzidine	100	74.1		ug/L		74	50 - 105
3-Nitroaniline	100	80.8		ug/L		81	47 - 113
4,6-Dinitro-2-methylphenol	100	92.6		ug/L		93	56 - 118
4-Bromophenyl phenyl ether	100	84.0		ug/L		84	62 - 98
4-Chloro-3-methylphenol	100	73.6		ug/L		74	51 - 102
4-Chloroaniline	100	67.8		ug/L		68	43 - 97
4-Chlorophenyl phenyl ether	100	81.5		ug/L		81	59 - 110
4-Nitroaniline	100	83.1		ug/L		83	51 - 119
4-Nitrophenol	100	31.6		ug/L		32	20 - 47
Acenaphthene	100	78.4		ug/L		78	58 - 108
Acenaphthylene	100	78.0		ug/L		78	59 - 110
Anthracene	100	82.7		ug/L		83	59 - 106
Benzo[a]anthracene	100	87.0		ug/L		87	56 - 105
Benzo[a]pyrene	100	91.1		ug/L		91	54 - 109
Benzo[b]fluoranthene	100	89.7		ug/L		90	58 - 109
Benzo[g,h,i]perylene	100	99.7		ug/L		100	50 - 119
Benzo[k]fluoranthene	100	90.6		ug/L		91	54 - 109
bis(2 chloro-1-methylethyl) ether	100	69.6		ug/L		70	49 - 97
Bis(2-chloroethoxy)methane	100	75.6		ug/L		76	59 - 110
Bis(2-chloroethyl)ether	100	68.4		ug/L		68	58 - 109
Bis(2-ethylhexyl) phthalate	100	84.1		ug/L		84	58 - 111
Butyl benzyl phthalate	100	86.4		ug/L		86	56 - 111
Carbazole	100	83.7		ug/L		84	56 - 101
Chrysene	100	85.7		ug/L		86	55 - 107
Dibenz(a,h)anthracene	100	110		ug/L		110	52 - 118
Dibenzofuran	100	77.8		ug/L		78	57 - 106
Diethyl phthalate	100	87.6		ug/L		88	58 - 113
Dimethyl phthalate	100	84.3		ug/L		84	60 - 114
Di-n-butyl phthalate	100	83.8		ug/L		84	60 - 105
Di-n-octyl phthalate	100	88.9		ug/L		89	59 - 113

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**Lab Sample ID: LCS 160-356443/2-A****Matrix: Water****Analysis Batch: 357801****Client Sample ID: Lab Control Sample****Prep Type: Total/NA****Prep Batch: 356443****%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Diphenylamine + N-Nitrosodiphenylamine	100	94.4		ug/L	94	65 - 119	
Fluoranthene	100	84.8		ug/L	85	56 - 113	
Fluorene	100	82.0		ug/L	82	61 - 113	
Hexachlorobenzene	100	84.3		ug/L	84	57 - 113	
Hexachlorobutadiene	100	47.3 o		ug/L	47	52 - 102	
Hexachlorocyclopentadiene	100	42.6		ug/L	43	40 - 120	
Hexachloroethane	100	46.1 o		ug/L	46	52 - 102	
Indeno[1,2,3-cd]pyrene	100	112		ug/L	112	49 - 120	
Isophorone	100	76.6		ug/L	77	56 - 101	
Naphthalene	100	66.3		ug/L	66	54 - 98	
Nitrobenzene	100	74.0		ug/L	74	59 - 110	
N-Nitrosodi-n-propylamine	100	74.1		ug/L	74	59 - 115	
Pentachlorophenol	100	75.6		ug/L	76	49 - 115	
Phenanthrene	100	84.0		ug/L	84	59 - 110	
Phenol	100	27.5		ug/L	28	20 - 69	
Pyrene	100	86.1		ug/L	86	55 - 105	

LCS**LCS**

Surrogate	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol (Surr)	92		37 - 120
2-Fluorobiphenyl (Surr)	81		43 - 108
2-Fluorophenol (Surr)	42		15 - 59
Nitrobenzene-d5 (Surr)	78		50 - 101
Phenol-d5 (Surr)	28		10 - 50
Terphenyl-d14 (Surr)	88		21 - 97

Lab Sample ID: 160-27365-G-2-A MS**Matrix: Water****Analysis Batch: 357801****Client Sample ID: Matrix Spike****Prep Type: Total/NA****Prep Batch: 356443**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1,2,4-Trichlorobenzene	0.93	U T	93.5	40.3	T	ug/L	43	61 - 95	
1,2-Dichlorobenzene	0.93	U T	93.5	40.9	T	ug/L	44	62 - 97	
1,3-Dichlorobenzene	0.93	U o T	93.5	36.9	T	ug/L	40	60 - 94	
1,4-Dichlorobenzene	0.93	U T	93.5	38.8	T	ug/L	41	60 - 94	
2,4,5-Trichlorophenol	0.93	U	93.5	64.1		ug/L	69	61 - 108	
2,4,6-Trichlorophenol	0.93	U	93.5	64.9		ug/L	69	61 - 108	
2,4-Dichlorophenol	0.93	U	93.5	59.3		ug/L	63	60 - 99	
2,4-Dimethylphenol	0.93	U	93.5	56.5		ug/L	60	54 - 97	
2,4-Dinitrophenol	1.9	U	93.5	65.7		ug/L	70	20 - 131	
2,4-Dinitrotoluene	0.93	U T	93.5	63.5		ug/L	68	62 - 112	
2,6-Dinitrotoluene	2.0	U T	93.5	67.3		ug/L	72	64 - 112	
2-Chloronaphthalene	0.93	U T	93.5	48.5	T	ug/L	52	63 - 104	
2-Chlorophenol	0.93	U T	93.5	51.5		ug/L	55	52 - 92	
2-Methylnaphthalene	0.93	U T	93.5	46.0	T	ug/L	49	64 - 99	
2-Methylphenol	0.93	U	93.5	44.1		ug/L	47	39 - 83	
2-Nitroaniline	1.0	U	93.5	74.5		ug/L	80	62 - 115	
2-Nitrophenol	1.4	U T	93.5	62.0		ug/L	66	64 - 106	

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**Lab Sample ID: 160-27365-G-2-A MS****Matrix: Water****Analysis Batch: 357801****Client Sample ID: Matrix Spike****Prep Type: Total/NA****Prep Batch: 356443****%Rec.**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
3 & 4 Methylphenol	1.9	U	93.5	45.7		ug/L	49	39 - 82	
3,3'-Dichlorobenzidine	1.2	U	93.5	65.2		ug/L	70	43 - 117	
3-Nitroaniline	0.93	U	93.5	73.1		ug/L	78	52 - 108	
4,6-Dinitro-2-methylphenol	1.2	U T	93.5	63.3		ug/L	68	61 - 113	
4-Bromophenyl phenyl ether	0.93	U T	93.5	51.8	T	ug/L	55	64 - 108	
4-Chloro-3-methylphenol	0.93	U	93.5	61.8		ug/L	66	51 - 105	
4-Chloroaniline	1.9	U	93.5	57.3		ug/L	61	48 - 92	
4-Chlorophenyl phenyl ether	0.93	U T	93.5	52.3	T	ug/L	56	64 - 105	
4-Nitroaniline	0.93	U	93.5	74.4		ug/L	80	56 - 114	
4-Nitrophenol	1.9	U	93.5	25.8		ug/L	28	15 - 42	
Acenaphthene	0.93	U T	93.5	52.0	T	ug/L	56	63 - 103	
Acenaphthylene	0.93	U T	93.5	52.2	T	ug/L	56	64 - 105	
Anthracene	0.93	U T	93.5	52.2	T	ug/L	56	64 - 101	
Benzo[a]anthracene	0.93	U T	93.5	52.8		ug/L	57	55 - 116	
Benzo[a]pyrene	0.93	U T	93.5	55.1		ug/L	59	55 - 109	
Benzo[b]fluoranthene	0.93	U T	93.5	53.0		ug/L	57	56 - 119	
Benzo[g,h,i]perylene	0.93	U	93.5	64.0		ug/L	68	40 - 127	
Benzo[k]fluoranthene	0.93	U T	93.5	54.2		ug/L	58	54 - 110	
bis(2 chloro-1-methylethyl) ether	0.93	U	93.5	58.0		ug/L	62	54 - 102	
Bis(2-chloroethoxy)methane	0.93	U T	93.5	62.2		ug/L	67	64 - 105	
Bis(2-chloroethyl)ether	0.93	U T	93.5	56.4	T	ug/L	60	63 - 104	
Bis(2-ethylhexyl) phthalate	1.7	U T	93.5	49.3		ug/L	53	53 - 125	
Butyl benzyl phthalate	0.93	U T	93.5	53.0		ug/L	57	56 - 128	
Carbazole	0.93	U T	93.5	57.4	T	ug/L	61	62 - 106	
Chrysene	0.93	U T	93.5	51.2	T	ug/L	55	56 - 115	
Dibenz(a,h)anthracene	0.93	U	93.5	65.1		ug/L	70	44 - 128	
Dibenzofuran	0.93	U T	93.5	51.1	T	ug/L	55	62 - 101	
Diethyl phthalate	0.93	U	93.5	69.8		ug/L	75	63 - 108	
Dimethyl phthalate	0.93	U	93.5	73.3		ug/L	78	65 - 109	
Di-n-butyl phthalate	0.93	U T	93.5	52.8	T	ug/L	56	62 - 109	
Di-n-octyl phthalate	0.93	U T	93.5	51.4		ug/L	55	54 - 128	
Diphenylamine + N-Nitrosodiphenylamine	0.93	U T	93.5	62.2	T	ug/L	67	70 - 119	
Fluoranthene	0.93	U T	93.5	53.5	T	ug/L	57	61 - 108	
Fluorene	0.93	U T	93.5	52.9	T	ug/L	57	66 - 108	
Hexachlorobenzene	0.93	U T	93.5	51.8	T	ug/L	55	62 - 108	
Hexachlorobutadiene	0.93	U o T	93.5	30.1	T	ug/L	32	57 - 97	
Hexachlorocyclopentadiene	0.93	U	93.5	33.6		ug/L	36	16 - 115	
Hexachloroethane	0.93	U o T	93.5	28.0	T	ug/L	30	57 - 97	
Indeno[1,2,3-cd]pyrene	0.93	U	93.5	67.0		ug/L	72	42 - 131	
Isophorone	0.93	U	93.5	64.3		ug/L	69	48 - 106	
Naphthalene	0.93	U T	93.5	50.1	T	ug/L	54	63 - 98	
Nitrobenzene	0.93	U T	93.5	62.2		ug/L	67	64 - 105	
N-Nitrosodi-n-propylamine	1.4	U T	93.5	61.5		ug/L	66	64 - 110	
Pentachlorophenol	1.2	U T	93.5	47.8	T	ug/L	51	54 - 110	
Phenanthrene	0.93	U T	93.5	54.3	T	ug/L	58	64 - 105	
Phenol	1.9	U	93.5	21.3		ug/L	23	15 - 70	
Pyrene	0.93	U T	93.5	55.1		ug/L	59	57 - 118	

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**Lab Sample ID: 160-27365-G-2-A MS****Matrix: Water****Analysis Batch: 357801****Client Sample ID: Matrix Spike****Prep Type: Total/NA****Prep Batch: 356443**

Surrogate	MS	MS	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol (Surr)	84				37 - 120
2-Fluorobiphenyl (Surr)	71				43 - 108
2-Fluorophenol (Surr)	34				15 - 59
Nitrobenzene-d5 (Surr)	71				50 - 101
Phenol-d5 (Surr)	23				10 - 50
Terphenyl-d14 (Surr)	66				21 - 97

Lab Sample ID: 160-27365-H-2-A MSD**Matrix: Water****Analysis Batch: 357801****Client Sample ID: Matrix Spike Duplicate****Prep Type: Total/NA****Prep Batch: 356443**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier		Added	Result						
1,2,4-Trichlorobenzene	0.93	U T	93.2	38.5	T	ug/L	41	61 - 95	5	20	
1,2-Dichlorobenzene	0.93	U T	93.2	39.2	T	ug/L	42	62 - 97	4	20	
1,3-Dichlorobenzene	0.93	U o T	93.2	34.9	T	ug/L	37	60 - 94	6	20	
1,4-Dichlorobenzene	0.93	U T	93.2	36.4	T	ug/L	39	60 - 94	6	20	
2,4,5-Trichlorophenol	0.93	U	93.2	60.5		ug/L	65	61 - 108	6	20	
2,4,6-Trichlorophenol	0.93	U	93.2	60.3		ug/L	65	61 - 108	7	20	
2,4-Dichlorophenol	0.93	U	93.2	56.1		ug/L	60	60 - 99	6	20	
2,4-Dimethylphenol	0.93	U	93.2	51.8		ug/L	56	54 - 97	9	20	
2,4-Dinitrophenol	1.9	U	93.2	56.6		ug/L	61	20 - 131	15	20	
2,4-Dinitrotoluene	0.93	U T	93.2	55.4	T	ug/L	59	62 - 112	14	20	
2,6-Dinitrotoluene	2.0	U T	93.2	58.3	T	ug/L	63	64 - 112	14	20	
2-Chloronaphthalene	0.93	U T	93.2	45.2	T	ug/L	48	63 - 104	7	20	
2-Chlorophenol	0.93	U T	93.2	47.8	T	ug/L	51	52 - 92	8	20	
2-Methylnaphthalene	0.93	U T	93.2	43.5	T	ug/L	47	64 - 99	6	20	
2-Methylphenol	0.93	U	93.2	39.2		ug/L	42	39 - 83	12	20	
2-Nitroaniline	1.0	U	93.2	64.5		ug/L	69	62 - 115	14	20	
2-Nitrophenol	1.4	U T	93.2	57.8	T	ug/L	62	64 - 106	7	20	
3 & 4 Methylphenol	1.9	U	93.2	40.7		ug/L	44	39 - 82	12	20	
3,3'-Dichlorobenzidine	1.2	U	93.2	56.3		ug/L	60	43 - 117	15	20	
3-Nitroaniline	0.93	U	93.2	63.5		ug/L	68	52 - 108	14	20	
4,6-Dinitro-2-methylphenol	1.2	U T	93.2	55.5	T	ug/L	60	61 - 113	13	20	
4-Bromophenyl phenyl ether	0.93	U T	93.2	45.8	T	ug/L	49	64 - 108	12	20	
4-Chloro-3-methylphenol	0.93	U	93.2	55.1		ug/L	59	51 - 105	11	20	
4-Chloroaniline	1.9	U	93.2	58.1		ug/L	62	48 - 92	1	20	
4-Chlorophenyl phenyl ether	0.93	U T	93.2	45.7	T	ug/L	49	64 - 105	13	20	
4-Nitroaniline	0.93	U	93.2	64.0		ug/L	69	56 - 114	15	20	
4-Nitrophenol	1.9	U	93.2	21.0		ug/L	23	15 - 42	20	20	
Acenaphthene	0.93	U T	93.2	47.0	T	ug/L	50	63 - 103	10	20	
Acenaphthylene	0.93	U T	93.2	48.0	T	ug/L	52	64 - 105	8	20	
Anthracene	0.93	U T	93.2	44.1	T	ug/L	47	64 - 101	17	20	
Benzo[a]anthracene	0.93	U T	93.2	43.9	T	ug/L	47	55 - 116	19	20	
Benzo[a]pyrene	0.93	U T	93.2	45.8	T	ug/L	49	55 - 109	18	20	
Benzo[b]fluoranthene	0.93	U T	93.2	46.5	T	ug/L	50	56 - 119	13	20	
Benzo[g,h,i]perylene	0.93	U	93.2	55.2		ug/L	59	40 - 127	15	20	
Benzo[k]fluoranthene	0.93	U T	93.2	44.2	T	ug/L	47	54 - 110	20	20	
bis(2 chloro-1-methylethyl) ether	0.93	U	93.2	53.9		ug/L	58	54 - 102	7	20	

Client: CH2M Hill Plateau Remediation Company
Project/Site: A18-003 / S18-003 / W18-003TestAmerica Job ID: 160-27368-1
SDG: SL2827**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)****Lab Sample ID: 160-27365-H-2-A MSD****Matrix: Water****Analysis Batch: 357801****Client Sample ID: Matrix Spike Duplicate****Prep Type: Total/NA****Prep Batch: 356443**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Bis(2-chloroethoxy)methane	0.93	U T	93.2	58.7	T	ug/L	63	64 - 105	6	20	6
Bis(2-chloroethyl)ether	0.93	U T	93.2	52.9	T	ug/L	57	63 - 104	6	20	6
Bis(2-ethylhexyl) phthalate	1.7	U T	93.2	41.3	T	ug/L	44	53 - 125	18	20	7
Butyl benzyl phthalate	0.93	U T	93.2	44.4	T	ug/L	48	56 - 128	18	20	20
Carbazole	0.93	U T	93.2	49.1	T	ug/L	53	62 - 106	16	20	8
Chrysene	0.93	U T	93.2	43.2	T	ug/L	46	56 - 115	17	20	20
Dibenz(a,h)anthracene	0.93	U	93.2	53.7		ug/L	58	44 - 128	19	20	9
Dibenzofuran	0.93	U T	93.2	46.0	T	ug/L	49	62 - 101	10	20	10
Diethyl phthalate	0.93	U	93.2	61.3		ug/L	66	63 - 108	13	20	11
Dimethyl phthalate	0.93	U	93.2	63.5		ug/L	68	65 - 109	14	20	11
Di-n-butyl phthalate	0.93	U T	93.2	45.4	T	ug/L	49	62 - 109	15	20	11
Di-n-octyl phthalate	0.93	U T	93.2	42.7	T	ug/L	46	54 - 128	18	20	12
Diphenylamine +	0.93	U T	93.2	55.2	T	ug/L	59	70 - 119	12	20	12
N-Nitrosodiphenylamine											
Fluoranthene	0.93	U T	93.2	46.2	T	ug/L	50	61 - 108	15	20	12
Fluorene	0.93	U T	93.2	46.9	T	ug/L	50	66 - 108	12	20	12
Hexachlorobenzene	0.93	U T	93.2	44.6	T	ug/L	48	62 - 108	15	20	12
Hexachlorobutadiene	0.93	U o T	93.2	28.7	T	ug/L	31	57 - 97	5	20	12
Hexachlorocyclopentadiene	0.93	U	93.2	31.6		ug/L	34	16 - 115	6	20	12
Hexachloroethane	0.93	U o T	93.2	27.1	T	ug/L	29	57 - 97	3	20	12
Indeno[1,2,3-cd]pyrene	0.93	U	93.2	56.6		ug/L	61	42 - 131	17	20	12
Isophorone	0.93	U	93.2	59.5		ug/L	64	48 - 106	8	20	12
Naphthalene	0.93	U T	93.2	48.0	T	ug/L	51	63 - 98	4	20	12
Nitrobenzene	0.93	U T	93.2	57.8	T	ug/L	62	64 - 105	7	20	12
N-Nitrosodi-n-propylamine	1.4	U T	93.2	56.6	T	ug/L	61	64 - 110	8	20	12
Pentachlorophenol	1.2	U T	93.2	42.0	J T	ug/L	45	54 - 110	13	20	12
Phenanthren	0.93	U T	93.2	46.7	T	ug/L	50	64 - 105	15	20	12
Phenol	1.9	U	93.2	18.8		ug/L	20	15 - 70	13	20	12
Pyrene	0.93	U T	93.2	45.8	T	ug/L	49	57 - 118	18	20	12
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
2,4,6-Tribromophenol (Surr)	72		37 - 120								
2-Fluorobiphenyl (Surr)	65		43 - 108								
2-Fluorophenol (Surr)	31		15 - 59								
Nitrobenzene-d5 (Surr)	66		50 - 101								
Phenol-d5 (Surr)	20		10 - 50								
Terphenyl-d14 (Surr)	59		21 - 97								

Method: 8081B - Organochlorine Pesticides (GC)**Lab Sample ID: MB 160-356741/1-A****Matrix: Water****Analysis Batch: 357221****Client Sample ID: Method Blank****Prep Type: Total/NA****Prep Batch: 356741**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
4,4'-DDD	0.014	U	0.050	0.014	ug/L		03/20/18 15:20	03/22/18 13:13	1
4,4'-DDE	0.014	U	0.050	0.014	ug/L		03/20/18 15:20	03/22/18 13:13	1
4,4'-DDT	0.023	U	0.050	0.023	ug/L		03/20/18 15:20	03/22/18 13:13	1

TestAmerica St. Louis

Method: 8081B - Organochlorine Pesticides (GC) (Continued)**Lab Sample ID: MB 160-356741/1-A****Matrix: Water****Analysis Batch: 357221****Client Sample ID: Method Blank**
Prep Type: Total/NA
Prep Batch: 356741

Analyte	MB		RL	MDL	Unit	D	Prepared		Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed		
Aldrin	0.010	U	0.050	0.010	ug/L	03/20/18 15:20	03/22/18 13:13		1	
alpha-BHC	0.010	U	0.050	0.010	ug/L	03/20/18 15:20	03/22/18 13:13		1	
cis-Chlordane	0.015	U	0.050	0.015	ug/L	03/20/18 15:20	03/22/18 13:13		1	
beta-BHC	0.013	U	0.050	0.013	ug/L	03/20/18 15:20	03/22/18 13:13		1	
delta-BHC	0.011	U	0.050	0.011	ug/L	03/20/18 15:20	03/22/18 13:13		1	
Dieldrin	0.010	U	0.050	0.010	ug/L	03/20/18 15:20	03/22/18 13:13		1	
Endosulfan I	0.019	U	0.050	0.019	ug/L	03/20/18 15:20	03/22/18 13:13		1	
Endosulfan II	0.010	U	0.050	0.010	ug/L	03/20/18 15:20	03/22/18 13:13		1	
Endosulfan sulfate	0.010	U	0.050	0.010	ug/L	03/20/18 15:20	03/22/18 13:13		1	
Endrin	0.018	U	0.050	0.018	ug/L	03/20/18 15:20	03/22/18 13:13		1	
Endrin aldehyde	0.010	U	0.050	0.010	ug/L	03/20/18 15:20	03/22/18 13:13		1	
Endrin ketone	0.011	U	0.050	0.011	ug/L	03/20/18 15:20	03/22/18 13:13		1	
gamma-BHC (Lindane)	0.010	U	0.050	0.010	ug/L	03/20/18 15:20	03/22/18 13:13		1	
Heptachlor	0.013	U	0.050	0.013	ug/L	03/20/18 15:20	03/22/18 13:13		1	
Heptachlor epoxide	0.017	U	0.050	0.017	ug/L	03/20/18 15:20	03/22/18 13:13		1	
Methoxychlor	0.013	U	0.50	0.013	ug/L	03/20/18 15:20	03/22/18 13:13		1	
Technical Chlordane	0.10	U	0.50	0.10	ug/L	03/20/18 15:20	03/22/18 13:13		1	
Toxaphene	0.27	U	2.0	0.27	ug/L	03/20/18 15:20	03/22/18 13:13		1	
trans-Chlordane	0.010	U	0.050	0.010	ug/L	03/20/18 15:20	03/22/18 13:13		1	
Surrogate	MB		Limits	%Recovery	Qualifier	Prepared	Analyzed	Dil Fac		
	MB	MB								
DCB Decachlorobiphenyl (Surr)	64	64	26 - 127			03/20/18 15:20	03/22/18 13:13	1		
Tetrachloro-m-xylene	60	60	53 - 116			03/20/18 15:20	03/22/18 13:13	1		

Lab Sample ID: LCS 160-356741/2-A**Matrix: Water****Analysis Batch: 357221****Client Sample ID: Lab Control Sample**
Prep Type: Total/NA**Prep Batch: 356741**

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits	%Rec.
		Result	Qualifier					
4,4'-DDD	0.500	0.469		ug/L	94	79 - 115		
4,4'-DDE	0.501	0.393		ug/L	78	73 - 107		
4,4'-DDT	0.500	0.476		ug/L	95	79 - 111		
Aldrin	0.500	0.339		ug/L	68	63 - 94		
alpha-BHC	0.500	0.434		ug/L	87	79 - 111		
cis-Chlordane	0.500	0.409		ug/L	82	75 - 105		
beta-BHC	0.500	0.463		ug/L	93	73 - 104		
delta-BHC	0.500	0.527		ug/L	105	80 - 117		
Dieldrin	0.501	0.435		ug/L	87	75 - 107		
Endosulfan I	0.500	0.360		ug/L	72	38 - 105		
Endosulfan II	0.500	0.392		ug/L	78	50 - 105		
Endosulfan sulfate	0.500	0.466		ug/L	93	76 - 111		
Endrin	0.501	0.448		ug/L	90	73 - 118		
Endrin aldehyde	0.500	0.477		ug/L	95	77 - 112		
Endrin ketone	0.501	0.466		ug/L	93	78 - 112		
gamma-BHC (Lindane)	0.501	0.444		ug/L	89	79 - 106		
Heptachlor	0.500	0.391		ug/L	78	53 - 115		
Heptachlor epoxide	0.500	0.427		ug/L	85	76 - 108		
Methoxychlor	0.500	0.486 J		ug/L	97	77 - 114		

TestAmerica St. Louis

Client: CH2M Hill Plateau Remediation Company
Project/Site: A18-003 / S18-003 / W18-003TestAmerica Job ID: 160-27368-1
SDG: SL2827**Method: 8081B - Organochlorine Pesticides (GC) (Continued)****Lab Sample ID: LCS 160-356741/2-A****Matrix: Water****Analysis Batch: 357221****Client Sample ID: Lab Control Sample****Prep Type: Total/NA****Prep Batch: 356741****%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
trans-Chlordane	0.500	0.402		ug/L		80	72 - 104
Surrogate							
DCB Decachlorobiphenyl (Surr)	63			ug/L			26 - 127
Tetrachloro-m-xylene	65			ug/L			53 - 116

Lab Sample ID: 160-27368-15 MS**Matrix: Water****Analysis Batch: 357221****Client Sample ID: B3HL47****Prep Type: Total/NA****Prep Batch: 356741****%Rec.**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
4,4'-DDD	0.013	U	0.476	0.526		ug/L		110	80 - 111
4,4'-DDE	0.013	U	0.477	0.434		ug/L		91	70 - 106
4,4'-DDT	0.022	U N	0.476	0.533	N	ug/L		112	76 - 108
Aldrin	0.0095	U	0.476	0.396		ug/L		83	57 - 101
alpha-BHC	0.0095	U	0.476	0.449		ug/L		94	76 - 109
cis-Chlordane	0.014	U	0.476	0.441		ug/L		93	70 - 110
beta-BHC	0.012	U	0.476	0.466		ug/L		98	74 - 102
delta-BHC	0.010	U	0.476	0.527		ug/L		111	64 - 134
Dieldrin	0.0095	U	0.477	0.459		ug/L		96	69 - 117
Endosulfan I	0.018	U	0.476	0.367		ug/L		77	36 - 102
Endosulfan II	0.0095	U	0.476	0.421		ug/L		88	48 - 102
Endosulfan sulfate	0.0095	U	0.476	0.497		ug/L		104	81 - 107
Endrin	0.017	U	0.477	0.479		ug/L		100	77 - 118
Endrin aldehyde	0.0095	U	0.476	0.507		ug/L		106	81 - 109
Endrin ketone	0.010	U	0.477	0.493		ug/L		103	81 - 109
gamma-BHC (Lindane)	0.0095	U	0.477	0.457		ug/L		96	69 - 112
Heptachlor	0.012	U	0.476	0.444		ug/L		93	23 - 150
Heptachlor epoxide	0.016	U	0.476	0.447		ug/L		94	76 - 115
Methoxychlor	0.012	U	0.476	0.539		ug/L		113	76 - 115
trans-Chlordane	0.0095	U	0.476	0.453		ug/L		95	70 - 108
Surrogate								%Rec.	
DCB Decachlorobiphenyl (Surr)	72			ug/L				26 - 127	
Tetrachloro-m-xylene	77			ug/L				53 - 116	

Lab Sample ID: 160-27368-15 MSD**Matrix: Water****Analysis Batch: 357221****Client Sample ID: B3HL47****Prep Type: Total/NA****Prep Batch: 356741****%Rec.**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
4,4'-DDD	0.013	U	0.482	0.455		ug/L		94	80 - 111	14	20
4,4'-DDE	0.013	U	0.483	0.378		ug/L		78	70 - 106	14	20
4,4'-DDT	0.022	U N	0.482	0.463		ug/L		96	76 - 108	14	20
Aldrin	0.0095	U	0.482	0.354		ug/L		73	57 - 101	11	20
alpha-BHC	0.0095	U	0.482	0.408		ug/L		85	76 - 109	10	20
cis-Chlordane	0.014	U	0.482	0.386		ug/L		80	70 - 110	13	20
beta-BHC	0.012	U	0.482	0.426		ug/L		88	74 - 102	9	20

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Client: CH2M Hill Plateau Remediation Company
Project/Site: A18-003 / S18-003 / W18-003TestAmerica Job ID: 160-27368-1
SDG: SL2827**Method: 8081B - Organochlorine Pesticides (GC) (Continued)****Lab Sample ID: 160-27368-15 MSD****Matrix: Water****Analysis Batch: 357221****Client Sample ID: B3HL47****Prep Type: Total/NA****Prep Batch: 356741**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
delta-BHC	0.010	U	0.482	0.484		ug/L	100	64 - 134	8	20	
Dieldrin	0.0095	U	0.483	0.405		ug/L	84	69 - 117	12	20	
Endosulfan I	0.018	U	0.482	0.317		ug/L	66	36 - 102	15	20	
Endosulfan II	0.0095	U	0.482	0.358		ug/L	74	48 - 102	16	20	
Endosulfan sulfate	0.0095	U	0.482	0.430		ug/L	89	81 - 107	14	20	
Endrin	0.017	U	0.483	0.421		ug/L	87	77 - 118	13	20	
Endrin aldehyde	0.0095	U	0.483	0.441		ug/L	91	81 - 109	14	20	
Endrin ketone	0.010	U	0.483	0.433		ug/L	90	81 - 109	13	20	
gamma-BHC (Lindane)	0.0095	U	0.483	0.414		ug/L	86	69 - 112	10	20	
Heptachlor	0.012	U	0.482	0.406		ug/L	84	23 - 150	9	20	
Heptachlor epoxide	0.016	U	0.482	0.407		ug/L	84	76 - 115	10	20	
Methoxychlor	0.012	U	0.482	0.476	J	ug/L	99	76 - 115	13	20	
trans-Chlordane	0.0095	U	0.482	0.401		ug/L	83	70 - 108	12	20	
Surrogate		MSD	MSD	%Recovery		Qualifier	Limits				
DCB Decachlorobiphenyl (Surr)		64					26 - 127				
Tetrachloro-m-xylene		73					53 - 116				

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography**Lab Sample ID: MB 160-356965/1-A****Matrix: Water****Analysis Batch: 357217****Client Sample ID: Method Blank****Prep Type: Total/NA****Prep Batch: 356965**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
	Result	Qualifier										
Aroclor 1016	0.35	U	1.0	0.35	ug/L		03/21/18 19:35	03/22/18 11:45	1			
Aroclor 1221	0.35	U	1.0	0.35	ug/L		03/21/18 19:35	03/22/18 11:45	1			
Aroclor 1232	0.35	U	1.0	0.35	ug/L		03/21/18 19:35	03/22/18 11:45	1			
Aroclor 1242	0.35	U	1.0	0.35	ug/L		03/21/18 19:35	03/22/18 11:45	1			
Aroclor 1248	0.35	U	1.0	0.35	ug/L		03/21/18 19:35	03/22/18 11:45	1			
Aroclor 1254	0.29	U	1.0	0.29	ug/L		03/21/18 19:35	03/22/18 11:45	1			
Aroclor 1260	0.29	U	1.0	0.29	ug/L		03/21/18 19:35	03/22/18 11:45	1			
Surrogate		MB	MB	%Recovery		Qualifier	Limits		Prepared		Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)		83					32 - 141		03/21/18 19:35		03/22/18 11:45	1

Lab Sample ID: LCS 160-356965/2-A**Matrix: Water****Analysis Batch: 357217****Client Sample ID: Lab Control Sample****Prep Type: Total/NA****Prep Batch: 356965**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Aroclor 1016	5.00	4.47		ug/L		89	43 - 138
Aroclor 1260	5.00	4.49		ug/L		90	43 - 137
Surrogate		LCS	LCS	%Recovery		Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	83			32 - 141			

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Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)**Lab Sample ID: 160-27378-F-12-A MS****Matrix: Water****Analysis Batch: 357217****Client Sample ID: Matrix Spike**
Prep Type: Total/NA
Prep Batch: 356965

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.
Aroclor 1016	0.34	U	4.82	4.15		ug/L		86	47 - 133
Aroclor 1260	0.28	U	4.82	3.91		ug/L		81	39 - 130
Surrogate				MS	MS				Limits
DCB Decachlorobiphenyl (Surr)	%Recovery				Qualifier				32 - 141

Lab Sample ID: 160-27378-G-12-A MSD**Matrix: Water****Analysis Batch: 357217****Client Sample ID: Matrix Spike Duplicate**
Prep Type: Total/NA
Prep Batch: 356965

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec.	RPD
Aroclor 1016	0.34	U	4.81	4.16		ug/L		87	47 - 133	0 20
Aroclor 1260	0.28	U	4.81	3.93		ug/L		82	39 - 130	0 20
Surrogate				MSD	MSD				Limits	RPD
DCB Decachlorobiphenyl (Surr)	%Recovery				Qualifier				32 - 141	

Method: 8151A - Herbicides (GC)**Lab Sample ID: MB 160-356962/1-A****Matrix: Water****Analysis Batch: 357799****Client Sample ID: Method Blank**
Prep Type: Total/NA
Prep Batch: 356962

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	0.27	U	1.0	0.27	ug/L		03/21/18 18:35	03/27/18 11:14	1
2,4-D	4.2	U	8.0	4.2	ug/L		03/21/18 18:35	03/27/18 11:14	1
2,4-DB	3.8	U	8.0	3.8	ug/L		03/21/18 18:35	03/27/18 11:14	1
Dalapon	9.8	U	12	9.8	ug/L		03/21/18 18:35	03/27/18 11:14	1
Dicamba	0.33	U	2.0	0.33	ug/L		03/21/18 18:35	03/27/18 11:14	1
Dichlorprop	1.4	U	5.0	1.4	ug/L		03/21/18 18:35	03/27/18 11:14	1
Dinoseb	0.73	U	2.0	0.73	ug/L		03/21/18 18:35	03/27/18 11:14	1
MCPA	190	U	400	190	ug/L		03/21/18 18:35	03/27/18 11:14	1
MCPP	170	U	400	170	ug/L		03/21/18 18:35	03/27/18 11:14	1
Silvex (2,4,5-TP)	0.19	U	1.0	0.19	ug/L		03/21/18 18:35	03/27/18 11:14	1
Surrogate				MB	MB		Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	%Recovery			114	Qualifier	Limits			
						60 - 128			
							03/21/18 18:35	03/27/18 11:14	
									1

Lab Sample ID: LCS 160-356962/2-A**Matrix: Water****Analysis Batch: 357799****Client Sample ID: Lab Control Sample**
Prep Type: Total/NA
Prep Batch: 356962

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
2,4,5-T	5.00	4.71		ug/L		94	40 - 140
2,4-D	20.0	18.6		ug/L		93	40 - 140
2,4-DB	20.0	17.2		ug/L		86	40 - 140
Dalapon	20.0	15.3		ug/L		77	23 - 105

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Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 160-356962/2-A

Matrix: Water

Analysis Batch: 357799

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 356962

%Rec.

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Dicamba	10.0	9.53		ug/L	95	25 - 140	
Dichlorprop	20.0	18.7		ug/L	94	40 - 140	
Dinoseb	20.0	10.8		ug/L	54	11 - 140	
MCPA	2000	2210		ug/L	110	40 - 140	
MCPP	2000	2120		ug/L	106	40 - 140	
Silvex (2,4,5-TP)	5.00	4.45		ug/L	89	37 - 140	
<i>Surrogate</i>		LCS	LCS				
2,4-Dichlorophenylacetic acid		%Recovery	Qualifier	Limits			
		102		60 - 128			

Lab Sample ID: 160-27378-C-11-A MS

Matrix: Water

Analysis Batch: 357799

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 356962

%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	Limits
				Result	Qualifier				
2,4,5-T	0.79	J	4.74	3.35		ug/L	54	50 - 150	
2,4-D	4.0	U	19.0	13.7		ug/L	72	50 - 150	
2,4-DB	3.6	U	19.0	12.1		ug/L	64	50 - 150	
Dalapon	9.2	U	19.0	11.6		ug/L	61	50 - 129	
Dicamba	2.0		9.48	7.45		ug/L	58	50 - 150	
Dichlorprop	3.9	J	19.0	14.4		ug/L	55	50 - 150	
Dinoseb	2.6	N	19.0	7.91	N	ug/L	28	50 - 150	
MCPA	310	J	1900	1630		ug/L	69	50 - 150	
MCPP	310	J	1900	1630		ug/L	70	50 - 150	
Silvex (2,4,5-TP)	0.93	J	4.74	3.38		ug/L	52	50 - 150	
<i>Surrogate</i>		MS	MS						
2,4-Dichlorophenylacetic acid		%Recovery	Qualifier	Limits				60 - 128	
		87							

Lab Sample ID: 160-27378-D-11-A MSD

Matrix: Water

Analysis Batch: 357799

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 356962

%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	Limits	RPD	Limit
				Result	Qualifier						
2,4,5-T	0.79	J	4.73	5.30	y	ug/L	96	50 - 150		45	20
2,4-D	4.0	U	18.9	20.7	y	ug/L	110	50 - 150		41	20
2,4-DB	3.6	U	18.9	19.4	y	ug/L	103	50 - 150		46	20
Dalapon	9.2	U	18.9	15.7	y	ug/L	83	50 - 129		31	20
Dicamba	2.0		9.45	10.8	y	ug/L	94	50 - 150		37	20
Dichlorprop	3.9	J	18.9	21.1	y	ug/L	91	50 - 150		38	20
Dinoseb	2.6	N	18.9	12.5	y	ug/L	52	50 - 150		45	20
MCPA	310	J	1890	2470	y	ug/L	114	50 - 150		41	20
MCPP	310	J	1890	2410	y	ug/L	111	50 - 150		38	20
Silvex (2,4,5-TP)	0.93	J	4.73	5.11	y	ug/L	89	50 - 150		41	20
<i>Surrogate</i>		MSD	MSD								
2,4-Dichlorophenylacetic acid		%Recovery	Qualifier	Limits				60 - 128			
		118									

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Method: 6010C - Metals (ICP)**Lab Sample ID: MB 160-357365/1-A****Matrix: Water****Analysis Batch: 357704****Client Sample ID: Method Blank****Prep Type: Total/NA****Prep Batch: 357365**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	300	U	1000	300	ug/L		03/23/18 09:59	03/26/18 15:05	1
Iron	30.0	U	100	30.0	ug/L		03/23/18 09:59	03/26/18 15:05	1
Magnesium	300	U	1000	300	ug/L		03/23/18 09:59	03/26/18 15:05	1
Potassium	1500	U	5000	1500	ug/L		03/23/18 09:59	03/26/18 15:05	1
Sodium	300	U	1000	300	ug/L		03/23/18 09:59	03/26/18 15:05	1
Boron	25.0	U	100	25.0	ug/L		03/23/18 09:59	03/26/18 15:05	1
Vanadium	6.80	B	50.0	4.0	ug/L		03/23/18 09:59	03/26/18 15:05	1

Lab Sample ID: LCS 160-357365/2-A**Matrix: Water****Analysis Batch: 357704****Client Sample ID: Lab Control Sample****Prep Type: Total/NA****Prep Batch: 357365**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Calcium	10000	9774		ug/L		98	80 - 120
Iron	10000	9864		ug/L		99	80 - 120
Magnesium	10000	9300		ug/L		93	80 - 120
Potassium	10000	9834		ug/L		98	80 - 120
Sodium	10000	10060		ug/L		101	80 - 120
Boron	200	191.3		ug/L		96	80 - 120
Vanadium	1000	969.7		ug/L		97	80 - 120

Lab Sample ID: 160-27368-8 MS**Matrix: Water****Analysis Batch: 357704****Client Sample ID: B3HHN6****Prep Type: Dissolved****Prep Batch: 357365**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Calcium	37100		10000	45390		ug/L		83	75 - 125
Iron	30.0	U	10000	9550		ug/L		96	75 - 125
Magnesium	13200		10000	21860		ug/L		86	75 - 125
Potassium	5320		10000	14880		ug/L		96	75 - 125
Sodium	28500		10000	37770		ug/L		92	75 - 125
Boron	25.0	U	200	199.1		ug/L		100	75 - 125
Vanadium	17.3	B C	1000	958.5		ug/L		94	75 - 125

Lab Sample ID: 160-27368-8 MSD**Matrix: Water****Analysis Batch: 357704****Client Sample ID: B3HHN6****Prep Type: Dissolved****Prep Batch: 357365**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Calcium	37100		10000	45850		ug/L		87	75 - 125	1	20
Iron	30.0	U	10000	9815		ug/L		98	75 - 125	3	20
Magnesium	13200		10000	22530		ug/L		93	75 - 125	3	20
Potassium	5320		10000	15150		ug/L		98	75 - 125	2	20
Sodium	28500		10000	38430		ug/L		99	75 - 125	2	20
Boron	25.0	U	200	200.4		ug/L		100	75 - 125	1	20
Vanadium	17.3	B C	1000	977.3		ug/L		96	75 - 125	2	20

Method: 6020A - Metals (ICP/MS)**Lab Sample ID: MB 160-357361/1-A****Matrix: Water****Analysis Batch: 358756**

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 357361

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	20.0	U D	50.0	20.0	ug/L		03/23/18 09:56	04/03/18 17:30	2
Arsenic	4.0	U D	10.0	4.0	ug/L		03/23/18 09:56	04/03/18 17:30	2
Barium	0.90	U D	2.0	0.90	ug/L		03/23/18 09:56	04/03/18 17:30	2
Beryllium	0.20	U D	0.50	0.20	ug/L		03/23/18 09:56	04/03/18 17:30	2
Cadmium	0.20	U D	0.50	0.20	ug/L		03/23/18 09:56	04/03/18 17:30	2
Chromium	4.0	U D	10.0	4.0	ug/L		03/23/18 09:56	04/03/18 17:30	2
Cobalt	0.90	U D	2.0	0.90	ug/L		03/23/18 09:56	04/03/18 17:30	2
Copper	1.9	U D	3.0	1.9	ug/L		03/23/18 09:56	04/03/18 17:30	2
Lead	1.0	U D	3.0	1.0	ug/L		03/23/18 09:56	04/03/18 17:30	2
Manganese	0.90	U D	2.0	0.90	ug/L		03/23/18 09:56	04/03/18 17:30	2
Nickel	2.0	U D	5.0	2.0	ug/L		03/23/18 09:56	04/03/18 17:30	2
Selenium	4.11	B D	5.0	2.0	ug/L		03/23/18 09:56	04/03/18 17:30	2
Silver	0.90	U D	2.0	0.90	ug/L		03/23/18 09:56	04/03/18 17:30	2
Strontium	0.50	U D	5.0	0.50	ug/L		03/23/18 09:56	04/03/18 17:30	2
Thallium	0.90	U D	2.0	0.90	ug/L		03/23/18 09:56	04/03/18 17:30	2
Thorium	0.90	U D	2.0	0.90	ug/L		03/23/18 09:56	04/03/18 17:30	2
Tin	1.2	U D	2.0	1.2	ug/L		03/23/18 09:56	04/03/18 17:30	2
Uranium	0.40	U D	1.0	0.40	ug/L		03/23/18 09:56	04/03/18 17:30	2
Zinc	7.5	U D	20.0	7.5	ug/L		03/23/18 09:56	04/03/18 17:30	2

Lab Sample ID: MB 160-357361/1-A**Matrix: Water****Analysis Batch: 359021**

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 357361

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.0	U D	5.0	2.0	ug/L		03/23/18 09:56	04/04/18 18:21	2
Molybdenum	2.0	U D	5.0	2.0	ug/L		03/23/18 09:56	04/04/18 18:21	2

Lab Sample ID: LCS 160-357361/2-A**Matrix: Water****Analysis Batch: 358756**

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 357361

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Aluminum	10000	9571	D	ug/L		96	80 - 120
Arsenic	1000	984.4	D	ug/L		98	80 - 120
Barium	1000	950.4	D	ug/L		95	80 - 120
Beryllium	100	89.98	D	ug/L		90	80 - 120
Cadmium	1000	936.5	D	ug/L		94	80 - 120
Chromium	1000	971.9	D	ug/L		97	80 - 120
Cobalt	1000	1026	D	ug/L		103	80 - 120
Copper	1000	1036	D	ug/L		104	80 - 120
Lead	1000	963.7	D	ug/L		96	80 - 120
Manganese	1000	1014	D	ug/L		101	80 - 120
Nickel	1000	1098	D	ug/L		110	80 - 120
Selenium	500	488.9	D	ug/L		98	80 - 120
Silver	200	197.5	D	ug/L		99	80 - 120
Strontium	1000	1000	D	ug/L		100	80 - 120
Thallium	200	195.2	D	ug/L		98	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)**Lab Sample ID: LCS 160-357361/2-A****Matrix: Water****Analysis Batch: 358756****Client Sample ID: Lab Control Sample****Prep Type: Total/NA****Prep Batch: 357361****%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Thorium	1000	1005	D	ug/L	100	80 - 120	
Tin	1000	973.3	D	ug/L	97	80 - 120	
Uranium	1000	1009	D	ug/L	101	80 - 120	
Zinc	1000	972.2	D	ug/L	97	80 - 120	

Lab Sample ID: LCS 160-357361/2-A**Matrix: Water****Analysis Batch: 359021****Client Sample ID: Lab Control Sample****Prep Type: Total/NA****Prep Batch: 357361****%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	500	539.4	D	ug/L	108	80 - 120	
Molybdenum	500	499.7	D	ug/L	100	80 - 120	

Lab Sample ID: 160-27368-8 MS**Matrix: Water****Analysis Batch: 358756****Client Sample ID: B3HHN6****Prep Type: Dissolved****Prep Batch: 357361****%Rec.**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Aluminum	20.0	U D	10000	9529	D	ug/L	95	75 - 125	
Arsenic	4.7	B D	1000	993.5	D	ug/L	99	75 - 125	
Barium	42.8	D	1000	987.9	D	ug/L	95	75 - 125	
Beryllium	0.20	U D	100	92.78	D	ug/L	93	75 - 125	
Cadmium	0.20	U D	1000	933.0	D	ug/L	93	75 - 125	
Chromium	9.7	B D	1000	953.0	D	ug/L	94	75 - 125	
Cobalt	0.90	U D	1000	980.1	D	ug/L	98	75 - 125	
Copper	1.9	U D	1000	976.4	D	ug/L	98	75 - 125	
Lead	1.0	U D	1000	961.7	D	ug/L	96	75 - 125	
Manganese	0.90	U D	1000	979.1	D	ug/L	98	75 - 125	
Nickel	2.0	U D	1000	1034	D	ug/L	103	75 - 125	
Silver	0.90	U D	200	193.1	D	ug/L	97	75 - 125	
Strontium	305	D	1000	1275	D	ug/L	97	75 - 125	
Thallium	0.90	U D	200	194.1	D	ug/L	97	75 - 125	
Thorium	0.90	U D	1000	1010	D	ug/L	101	75 - 125	
Tin	1.2	U D	1000	986.0	D	ug/L	99	75 - 125	
Uranium	3.1	D	1000	1008	D	ug/L	100	75 - 125	
Zinc	7.5	U D	1000	960.5	D	ug/L	96	75 - 125	

Lab Sample ID: 160-27368-8 MSD**Matrix: Water****Analysis Batch: 358756****Client Sample ID: B3HHN6****Prep Type: Dissolved****Prep Batch: 357361****%Rec.****RPD**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aluminum	20.0	U D	10000	9473	D	ug/L	95	75 - 125		1	20
Arsenic	4.7	B D	1000	1000	D	ug/L	100	75 - 125		1	20
Barium	42.8	D	1000	996.3	D	ug/L	95	75 - 125		1	20
Beryllium	0.20	U D	100	92.17	D	ug/L	92	75 - 125		1	20
Cadmium	0.20	U D	1000	936.6	D	ug/L	94	75 - 125		0	20
Chromium	9.7	B D	1000	954.5	D	ug/L	94	75 - 125		0	20
Cobalt	0.90	U D	1000	973.3	D	ug/L	97	75 - 125		1	20

Method: 6020A - Metals (ICP/MS) (Continued)**Lab Sample ID: 160-27368-8 MSD****Matrix: Water****Analysis Batch: 358756****Client Sample ID: B3HHN6****Prep Type: Dissolved****Prep Batch: 357361****%Rec.****RPD**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Copper	1.9	U D	1000	986.9	D	ug/L	99	75 - 125	1	20	
Lead	1.0	U D	1000	960.9	D	ug/L	96	75 - 125	0	20	
Manganese	0.90	U D	1000	981.1	D	ug/L	98	75 - 125	0	20	
Nickel	2.0	U D	1000	1032	D	ug/L	103	75 - 125	0	20	
Silver	0.90	U D	200	195.0	D	ug/L	97	75 - 125	1	20	
Strontium	305	D	1000	1262	D	ug/L	96	75 - 125	1	20	
Thallium	0.90	U D	200	194.1	D	ug/L	97	75 - 125	0	20	
Thorium	0.90	U D	1000	1006	D	ug/L	101	75 - 125	0	20	
Tin	1.2	U D	1000	988.0	D	ug/L	99	75 - 125	0	20	
Uranium	3.1	D	1000	1021	D	ug/L	102	75 - 125	1	20	
Zinc	7.5	U D	1000	964.6	D	ug/L	96	75 - 125	0	20	

Method: 7470A - Mercury (CVAA)**Lab Sample ID: MB 160-356428/1-A****Matrix: Water****Analysis Batch: 356697****Client Sample ID: Method Blank****Prep Type: Total/NA****Prep Batch: 356428**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.060	U	0.20	0.060	ug/L		03/19/18 11:03	03/20/18 09:08	1

Lab Sample ID: LCS 160-356428/2-A**Matrix: Water****Analysis Batch: 356697****Client Sample ID: Lab Control Sample****Prep Type: Total/NA****Prep Batch: 356428**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Mercury	5.00	5.06		ug/L	101	80 - 120	

Lab Sample ID: 160-27368-13 MS**Matrix: Water****Analysis Batch: 356697****Client Sample ID: B3HL41****Prep Type: Total/NA****Prep Batch: 356428**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Mercury	0.060	U	5.00	5.12		ug/L	102	80 - 120	

Lab Sample ID: 160-27368-13 MSD**Matrix: Water****Analysis Batch: 356697****Client Sample ID: B3HL41****Prep Type: Total/NA****Prep Batch: 356428**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Mercury	0.060	U	5.00	5.09		ug/L	102	80 - 120	0	20	

Client: CH2M Hill Plateau Remediation Company
Project/Site: A18-003 / S18-003 / W18-003TestAmerica Job ID: 160-27368-1
SDG: SL2827**Method: 310.1 - Alkalinity****Lab Sample ID: MB 160-356985/1****Matrix: Water****Analysis Batch: 356985**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	0.54	U	5.0	0.54	mg/L			03/22/18 19:27	1

Lab Sample ID: HLCs 160-356985/3**Matrix: Water****Analysis Batch: 356985**

Analyte	Spike Added	HLCs Result	HLCs Qualifier	Unit	D	%Rec.	Limits
Alkalinity	400	386.0		mg/L		96	90 - 110

Lab Sample ID: LCS 160-356985/2**Matrix: Water****Analysis Batch: 356985**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Alkalinity	200	192.0		mg/L		96	90 - 110

Lab Sample ID: 160-27318-A-13 MS**Matrix: Water****Analysis Batch: 356985**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Alkalinity	96.0		100	194.0		mg/L		98	80 - 120

Lab Sample ID: 160-27318-A-13 DU**Matrix: Water****Analysis Batch: 356985**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Alkalinity	96.0		94.00		mg/L		2	20

Method: 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)**Lab Sample ID: MB 160-356599/1-A****Matrix: Water****Analysis Batch: 356730**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	5.0	U	10.9	5.0	mg/L		03/20/18 08:52	03/20/18 14:09	1

Lab Sample ID: LCS 160-356599/2-A**Matrix: Water****Analysis Batch: 356730**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Sulfide	55.3	31.03		mg/L		56	51 - 105

TestAmerica St. Louis

Client: CH2M Hill Plateau Remediation Company
 Project/Site: A18-003 / S18-003 / W18-003

TestAmerica Job ID: 160-27368-1
 SDG: SL2827

Method: 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric) (Continued)

Lab Sample ID: 160-27368-10 MS

Matrix: Water

Analysis Batch: 356730

Client Sample ID: B3HK75

Prep Type: Total/NA

Prep Batch: 356599

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Sulfide	5.0	U	55.3	28.12		mg/L	51	51 - 105	

Lab Sample ID: 160-27368-10 DU

Matrix: Water

Analysis Batch: 356730

Client Sample ID: B3HK75

Prep Type: Total/NA

Prep Batch: 356599

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Sulfide	5.0	U	5.0	U	mg/L	NC	20	

Method: 906.0 - Tritium, Total (LSC)

Lab Sample ID: MB 160-356463/1-A

Matrix: Water

Analysis Batch: 356721

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 356463

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	128.4	U	165	165	500	276	pCi/L	03/19/18 14:03	03/20/18 01:12	1

Lab Sample ID: LCS 160-356463/2-A

Matrix: Water

Analysis Batch: 356721

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 356463

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	Limits
Tritium	2770	2453		374	500	259	pCi/L	88	80 - 120

Lab Sample ID: 160-27067-A-2-C MS

Matrix: Water

Analysis Batch: 356721

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 356463

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	Limits
Tritium	2090		2770	4457		559	500	269	pCi/L	86	75 - 125

Lab Sample ID: 160-27067-A-1-C DU

Matrix: Water

Analysis Batch: 356721

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 356463

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RPD	Limit
Tritium	1010		862.6		230	500	261	pCi/L	15	20

TestAmerica St. Louis

Method: SR-03-RC - Total Beta Strontium (GFPC)**Lab Sample ID: MB 160-358545/8-A****Matrix: Water****Analysis Batch: 359580****Client Sample ID: Method Blank**
Prep Type: Total/NA
Prep Batch: 358545

Analyte	Result	MB MB U	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Strontium 89/90	0.0804	U	0.0965	0.0967	2.00	0.159	pCi/L	04/02/18 18:21	04/08/18 17:39	1
<i>Carrier</i>										
<i>Sr Carrier</i>	82.8	MB MB %	Yield Qualifier	Limits	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
				40 - 110						

Lab Sample ID: LCS 160-358545/1-A**Matrix: Water****Analysis Batch: 359580****Client Sample ID: Lab Control Sample**
Prep Type: Total/NA
Prep Batch: 358545

Analyte	Added	Spike	LCS	LCS	Total	RL	MDC	Unit	%Rec	%Rec.
		Added	Result	Qual	Uncert. (2σ+/-)					
Strontium 89/90	8.28		7.929		0.657	2.00	0.133	pCi/L	96	80 - 120
<i>Carrier</i>										
<i>Sr Carrier</i>	85.3	LCS %Yield Qualifier	Limits	40 - 110	RL	MDC	Unit	%Rec	%Rec.	Limits

Lab Sample ID: LCSD 160-358545/2-A**Matrix: Water****Analysis Batch: 359580****Client Sample ID: Lab Control Sample Dup**
Prep Type: Total/NA
Prep Batch: 358545

Analyte	Added	Spike	LCSD	LCSD	Total	RL	MDC	Unit	%Rec	%Rec.
		Added	Result	Qual	Uncert. (2σ+/-)					
Strontium 89/90	8.28		7.947		0.660	2.00	0.131	pCi/L	96	80 - 120
<i>Carrier</i>										
<i>Sr Carrier</i>	85.4	LCSD %Yield Qualifier	Limits	40 - 110	RL	MDC	Unit	%Rec	%Rec.	RPD Limit

Method: TC-02-RC - Technetium-99 (LSC)**Lab Sample ID: MB 160-356972/1-A****Matrix: Water****Analysis Batch: 357996****Client Sample ID: Method Blank**
Prep Type: Total/NA
Prep Batch: 356972

Analyte	Result	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
		Result	MB MB U	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Technetium-99	-0.446	U		0.982	0.983	3.00	1.69	pCi/L	03/21/18 20:57	03/27/18 13:27	1
<i>Tracer</i>											
<i>Tc-99m</i>	101	MB %Yield Qualifier	Limits	30 - 105	RL	MDC	Unit	Prepared	Analyzed	Dil Fac	1

Method: TC-02-RC - Technetium-99 (LSC) (Continued)**Lab Sample ID: LCS 160-356972/2-A****Matrix: Water****Analysis Batch: 357996****Client Sample ID: Lab Control Sample****Prep Type: Total/NA****Prep Batch: 356972**

Analyte	Spike Added	LCS		Uncert. (2σ+/-)	Total RL	MDC	Unit	%Rec.	%Rec. Limits
		Result	Qual						
Technetium-99	30.9	37.54	o	4.49	3.00	2.93	pCi/L	121	80 - 120
<i>Tracer</i>									
<i>Tc-99m</i>									
		LCS	LCS						
		%Yield	Qualifier						
		Limits							
		58.5							
		30 - 105							

Lab Sample ID: LCSD 160-356972/3-A**Matrix: Water****Analysis Batch: 357996****Client Sample ID: Lab Control Sample Dup****Prep Type: Total/NA****Prep Batch: 356972**

Analyte	Spike Added	LCSD		Uncert. (2σ+/-)	Total RL	MDC	Unit	%Rec.	%Rec. Limits	RPD	RPD Limit
		Result	Qual								
Technetium-99	30.9	27.72	y	3.25	3.00	2.00	pCi/L	90	80 - 120	30	20
<i>Tracer</i>											
<i>Tc-99m</i>											
		LCSD	LCSD								
		%Yield	Qualifier								
		Limits									
		85.4									
		30 - 105									

GC/MS VOA**Analysis Batch: 356505**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-6	B3HFV4	Total/NA	Water	8260C	
160-27368-7	B3HFB8	Total/NA	Water	8260C	
160-27368-11	B3HK87	Total/NA	Water	8260C	
MB 160-356505/7	Method Blank	Total/NA	Water	8260C	
LCS 160-356505/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 160-356505/5	Lab Control Sample Dup	Total/NA	Water	8260C	
160-27366-A-1 MS	Matrix Spike	Total/NA	Water	8260C	
160-27366-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

GC/MS Semi VOA**Prep Batch: 356443**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-10	B3HK75	Total/NA	Water	3510C	
160-27368-11	B3HK87	Total/NA	Water	3510C	
160-27368-13	B3HL41	Total/NA	Water	3510C	
MB 160-356443/1-A	Method Blank	Total/NA	Water	3510C	
LCS 160-356443/2-A	Lab Control Sample	Total/NA	Water	3510C	
160-27365-G-2-A MS	Matrix Spike	Total/NA	Water	3510C	
160-27365-H-2-A MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 357801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-10	B3HK75	Total/NA	Water	8270D	356443
160-27368-11	B3HK87	Total/NA	Water	8270D	356443
160-27368-13	B3HL41	Total/NA	Water	8270D	356443
MB 160-356443/1-A	Method Blank	Total/NA	Water	8270D	356443
LCS 160-356443/2-A	Lab Control Sample	Total/NA	Water	8270D	356443
160-27365-G-2-A MS	Matrix Spike	Total/NA	Water	8270D	356443
160-27365-H-2-A MSD	Matrix Spike Duplicate	Total/NA	Water	8270D	356443

GC Semi VOA**Prep Batch: 356741**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-15	B3HL47	Total/NA	Water	3510C	
MB 160-356741/1-A	Method Blank	Total/NA	Water	3510C	
LCS 160-356741/2-A	Lab Control Sample	Total/NA	Water	3510C	
160-27368-15 MS	B3HL47	Total/NA	Water	3510C	
160-27368-15 MSD	B3HL47	Total/NA	Water	3510C	

Prep Batch: 356962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-15	B3HL47	Total/NA	Water	8151A	
MB 160-356962/1-A	Method Blank	Total/NA	Water	8151A	
LCS 160-356962/2-A	Lab Control Sample	Total/NA	Water	8151A	
160-27378-C-11-A MS	Matrix Spike	Total/NA	Water	8151A	
160-27378-D-11-A MSD	Matrix Spike Duplicate	Total/NA	Water	8151A	

GC Semi VOA (Continued)**Prep Batch: 356965**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-15	B3HL47	Total/NA	Water	3510C	
MB 160-356965/1-A	Method Blank	Total/NA	Water	3510C	
LCS 160-356965/2-A	Lab Control Sample	Total/NA	Water	3510C	
160-27378-F-12-A MS	Matrix Spike	Total/NA	Water	3510C	
160-27378-G-12-A MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 357217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-15	B3HL47	Total/NA	Water	8082A	356965
MB 160-356965/1-A	Method Blank	Total/NA	Water	8082A	356965
LCS 160-356965/2-A	Lab Control Sample	Total/NA	Water	8082A	356965
160-27378-F-12-A MS	Matrix Spike	Total/NA	Water	8082A	356965
160-27378-G-12-A MSD	Matrix Spike Duplicate	Total/NA	Water	8082A	356965

Analysis Batch: 357221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-15	B3HL47	Total/NA	Water	8081B	356741
MB 160-356741/1-A	Method Blank	Total/NA	Water	8081B	356741
LCS 160-356741/2-A	Lab Control Sample	Total/NA	Water	8081B	356741
160-27368-15 MS	B3HL47	Total/NA	Water	8081B	356741
160-27368-15 MSD	B3HL47	Total/NA	Water	8081B	356741

Analysis Batch: 357799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-15	B3HL47	Total/NA	Water	8151A	356962
MB 160-356962/1-A	Method Blank	Total/NA	Water	8151A	356962
LCS 160-356962/2-A	Lab Control Sample	Total/NA	Water	8151A	356962
160-27378-C-11-A MS	Matrix Spike	Total/NA	Water	8151A	356962
160-27378-D-11-A MSD	Matrix Spike Duplicate	Total/NA	Water	8151A	356962

Metals**Prep Batch: 356428**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-13	B3HL41	Total/NA	Water	7470A	
160-27368-14	B3HJR1	Dissolved	Water	7470A	
MB 160-356428/1-A	Method Blank	Total/NA	Water	7470A	
LCS 160-356428/2-A	Lab Control Sample	Total/NA	Water	7470A	
160-27368-13 MS	B3HL41	Total/NA	Water	7470A	
160-27368-13 MSD	B3HL41	Total/NA	Water	7470A	

Analysis Batch: 356697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-13	B3HL41	Total/NA	Water	7470A	356428
160-27368-14	B3HJR1	Dissolved	Water	7470A	356428
MB 160-356428/1-A	Method Blank	Total/NA	Water	7470A	356428
LCS 160-356428/2-A	Lab Control Sample	Total/NA	Water	7470A	356428
160-27368-13 MS	B3HL41	Total/NA	Water	7470A	356428
160-27368-13 MSD	B3HL41	Total/NA	Water	7470A	356428

Metals (Continued)**Prep Batch: 357361**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-3	B3HHK4	Dissolved	Water	3010A	5
160-27368-4	B3HHK1	Total/NA	Water	3010A	5
160-27368-8	B3HHN6	Dissolved	Water	3010A	5
160-27368-9	B3HL07	Total/NA	Water	3010A	6
160-27368-13	B3HL41	Total/NA	Water	3010A	7
160-27368-14	B3HJR1	Dissolved	Water	3010A	7
MB 160-357361/1-A	Method Blank	Total/NA	Water	3010A	8
LCS 160-357361/2-A	Lab Control Sample	Total/NA	Water	3010A	8
160-27368-8 MS	B3HHN6	Dissolved	Water	3010A	9
160-27368-8 MSD	B3HHN6	Dissolved	Water	3010A	9

Prep Batch: 357365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-8	B3HHN6	Dissolved	Water	3010A	11
160-27368-9	B3HL07	Total/NA	Water	3010A	11
160-27368-13	B3HL41	Total/NA	Water	3010A	11
160-27368-14	B3HJR1	Dissolved	Water	3010A	11
MB 160-357365/1-A	Method Blank	Total/NA	Water	3010A	12
LCS 160-357365/2-A	Lab Control Sample	Total/NA	Water	3010A	12
160-27368-8 MS	B3HHN6	Dissolved	Water	3010A	12
160-27368-8 MSD	B3HHN6	Dissolved	Water	3010A	12

Analysis Batch: 357704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-8	B3HHN6	Dissolved	Water	6010C	357365
160-27368-9	B3HL07	Total/NA	Water	6010C	357365
160-27368-13	B3HL41	Total/NA	Water	6010C	357365
160-27368-14	B3HJR1	Dissolved	Water	6010C	357365
MB 160-357365/1-A	Method Blank	Total/NA	Water	6010C	357365
LCS 160-357365/2-A	Lab Control Sample	Total/NA	Water	6010C	357365
160-27368-8 MS	B3HHN6	Dissolved	Water	6010C	357365
160-27368-8 MSD	B3HHN6	Dissolved	Water	6010C	357365

Analysis Batch: 358561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-13	B3HL41	Total/NA	Water	6020A	357361
160-27368-14	B3HJR1	Dissolved	Water	6020A	357361

Analysis Batch: 358756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-3	B3HHK4	Dissolved	Water	6020A	357361
160-27368-4	B3HHK1	Total/NA	Water	6020A	357361
160-27368-8	B3HHN6	Dissolved	Water	6020A	357361
160-27368-9	B3HL07	Total/NA	Water	6020A	357361
160-27368-13	B3HL41	Total/NA	Water	6020A	357361
160-27368-14	B3HJR1	Dissolved	Water	6020A	357361
MB 160-357361/1-A	Method Blank	Total/NA	Water	6020A	357361
LCS 160-357361/2-A	Lab Control Sample	Total/NA	Water	6020A	357361
160-27368-8 MS	B3HHN6	Dissolved	Water	6020A	357361
160-27368-8 MSD	B3HHN6	Dissolved	Water	6020A	357361

Metals (Continued)**Analysis Batch: 359021**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-13	B3HL41	Total/NA	Water	6020A	357361
160-27368-14	B3HJR1	Dissolved	Water	6020A	357361
MB 160-357361/1-A	Method Blank	Total/NA	Water	6020A	357361
LCS 160-357361/2-A	Lab Control Sample	Total/NA	Water	6020A	357361

General Chemistry**Prep Batch: 356599**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-10	B3HK75	Total/NA	Water	9030B	9
160-27368-11	B3HK87	Total/NA	Water	9030B	10
MB 160-356599/1-A	Method Blank	Total/NA	Water	9030B	11
LCS 160-356599/2-A	Lab Control Sample	Total/NA	Water	9030B	12
160-27368-10 MS	B3HK75	Total/NA	Water	9030B	
160-27368-10 DU	B3HK75	Total/NA	Water	9030B	

Analysis Batch: 356730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-10	B3HK75	Total/NA	Water	9034	356599
160-27368-11	B3HK87	Total/NA	Water	9034	356599
MB 160-356599/1-A	Method Blank	Total/NA	Water	9034	356599
LCS 160-356599/2-A	Lab Control Sample	Total/NA	Water	9034	356599
160-27368-10 MS	B3HK75	Total/NA	Water	9034	356599
160-27368-10 DU	B3HK75	Total/NA	Water	9034	356599

Analysis Batch: 356985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-11	B3HK87	Total/NA	Water	310.1	
160-27368-12	B3HL39	Total/NA	Water	310.1	
MB 160-356985/1	Method Blank	Total/NA	Water	310.1	
HLCS 160-356985/3	Lab Control Sample	Total/NA	Water	310.1	
LCS 160-356985/2	Lab Control Sample	Total/NA	Water	310.1	
160-27318-A-13 MS	Matrix Spike	Total/NA	Water	310.1	
160-27318-A-13 DU	Duplicate	Total/NA	Water	310.1	

Rad**Prep Batch: 356463**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-1	B3HDB5	Total/NA	Water	LSC_Dist_Susp	
MB 160-356463/1-A	Method Blank	Total/NA	Water	LSC_Dist_Susp	
LCS 160-356463/2-A	Lab Control Sample	Total/NA	Water	LSC_Dist_Susp	
160-27067-A-2-C MS	Matrix Spike	Total/NA	Water	LSC_Dist_Susp	
160-27067-A-1-C DU	Duplicate	Total/NA	Water	LSC_Dist_Susp	

Prep Batch: 356972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-1	B3HDB5	Total/NA	Water	Ext_Chrom_LSC	
160-27368-2	B3HFB7	Total/NA	Water	Ext_Chrom_LSC	
MB 160-356972/1-A	Method Blank	Total/NA	Water	Ext_Chrom_LSC	

Rad (Continued)**Prep Batch: 356972 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 160-356972/2-A	Lab Control Sample	Total/NA	Water	Ext_Chrom_LSC	
LCSD 160-356972/3-A	Lab Control Sample Dup	Total/NA	Water	Ext_Chrom_LSC	

Prep Batch: 358545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27368-5	B3HHD8	Total/NA	Water	PrecSep_0	
MB 160-358545/8-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-358545/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-358545/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-129)	BFB (81-130)	DBFM (81-124)	TOL (87-128)
160-27366-A-1 MS	Matrix Spike	88	87	94	99
160-27366-A-1 MSD	Matrix Spike Duplicate	87	87	93	98
160-27368-6	B3HFV4	86	110	89	102
160-27368-7	B3HFB8	88	111	91	102
160-27368-11	B3HK87	88	108	90	103
LCS 160-356505/4	Lab Control Sample	94	93	97	103
LCSD 160-356505/5	Lab Control Sample Dup	91	91	92	98
MB 160-356505/7	Method Blank	91	113	90	105

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
 BFB = 4-Bromofluorobenzene (Surr)
 DBFM = Dibromofluoromethane (Surr)
 TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (37-120)	FBP (43-108)	2FP (15-59)	NBZ (50-101)	PHL (10-50)	TPHL (21-97)
160-27365-G-2-A MS	Matrix Spike	84	71	34	71	23	66
160-27365-H-2-A MSD	Matrix Spike Duplicate	72	65	31	66	20	59
160-27368-10	B3HK75	82	77	40	78	25	62
160-27368-11	B3HK87	80	75	40	78	25	60
160-27368-13	B3HL41	84	78	42	79	25	86
LCS 160-356443/2-A	Lab Control Sample	92	81	42	78	28	88
MB 160-356443/1-A	Method Blank	87	79	45	83	28	93

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
 FBP = 2-Fluorobiphenyl (Surr)
 2FP = 2-Fluorophenol (Surr)
 NBZ = Nitrobenzene-d5 (Surr)
 PHL = Phenol-d5 (Surr)
 TPHL = Terphenyl-d14 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB1 (26-127)	TCX1 (53-116)
160-27368-15	B3HL47	66	71
160-27368-15 MS	B3HL47	72	77
160-27368-15 MSD	B3HL47	64	73
LCS 160-356741/2-A	Lab Control Sample	63	65
MB 160-356741/1-A	Method Blank	64	60

Surrogate Legend

Client: CH2M Hill Plateau Remediation Company
 Project/Site: A18-003 / S18-003 / W18-003

TestAmerica Job ID: 160-27368-1
 SDG: SL2827

DCB = DCB Decachlorobiphenyl (Surr)
 TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1 (32-141)											
160-27368-15	B3HL47	85											
160-27378-F-12-A MS	Matrix Spike	77											
160-27378-G-12-A MSD	Matrix Spike Duplicate	77											
LCS 160-356965/2-A	Lab Control Sample	83											
MB 160-356965/1-A	Method Blank	83											

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPAA1 (60-128)											
160-27368-15	B3HL47	128											
160-27378-C-11-A MS	Matrix Spike	87											
160-27378-D-11-A MSD	Matrix Spike Duplicate	118											
LCS 160-356962/2-A	Lab Control Sample	102											
MB 160-356962/1-A	Method Blank	114											

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Method: SR-03-RC - Total Beta Strontium (GFPC)**Matrix: Water****Prep Type: Total/NA****Percent Yield (Acceptance Limits)**

Lab Sample ID	Client Sample ID	Sr Carrier (40-110)											
160-27368-5	B3HHD8	81.7											
LCS 160-358545/1-A	Lab Control Sample	85.3											
LCSD 160-358545/2-A	Lab Control Sample Dup	85.4											
MB 160-358545/8-A	Method Blank	82.8											

Tracer/Carrier Legend

Sr Carrier = Sr Carrier

Method: TC-02-RC - Technetium-99 (LSC)**Matrix: Water****Prep Type: Total/NA****Percent Yield (Acceptance Limits)**

Lab Sample ID	Client Sample ID	Tc-99m (30-105)											
160-27368-1	B3HDB5	99.9											
160-27368-2	B3HFB7	105											
LCS 160-356972/2-A	Lab Control Sample	58.5											
LCSD 160-356972/3-A	Lab Control Sample Dup	85.4											
MB 160-356972/1-A	Method Blank	101											

Tracer/Carrier Legend

Tc-99m = Tc-99m